

AGRICULTURAL HISTORY

Volume 19



Number 3

July 1945

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Published Quarterly

by

THE AGRICULTURAL HISTORY SOCIETY

AGRICULTURAL HISTORY

Published Quarterly by the Agricultural History Society

Agricultural History is designed as a medium for the publication of research and documents pertaining to the history of agriculture in all its phases and as a clearing house for information of interest and value to workers in the field. Materials on the history of agriculture in all countries are included, and also materials on institutions, organizations, and sciences which have been factors in agricultural development. The Agricultural History Society assumes no responsibility for statements, whether of fact or of opinion, made by contributors.

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Correspondence concerning contributions, books for review, and back numbers may be sent to Everett E. Edwards, editor, Agricultural History Society, Room 3901, South Agriculture Building, Washington 25, D. C.; correspondence concerning membership dues and business matters to the secretary-treasurer, Charles A. Burmeister, at the same address.

Entered as second-class matter, October 12, 1928, at the post office at Baltimore, Maryland, under the Act of March 3, 1879.

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CATO'S VIEWS ON THE FARMER'S OBLIGATION TO THE LAND

LOIS OLSON

Roman literature began with a discussion of agriculture.¹ Cato's *De agri cultura* is not only the first treatise on agriculture but also the earliest surviving prose written in the Latin language. Before the time of Cato (234-149 B.C.), the Romans were farmers and good farmers. Each man owned only a few acres of grain land that he cultivated intensively with the assistance, possibly, of a few slaves who formed a part of his *familia*. Statesmen and generals retired to their farms and cultivated them with the same zeal and intelligence that they had given to the service of their country. Crop yields were high, and the land retained its productivity.

By 200 B.C., when Cato began writing, the situation had changed. Rome had waged successful wars in Greece and North Africa, slave labor had become abundant, and the Romans had transferred the responsibility for the land to overseers and slaves. Small farmers, unable to compete with slave labor, migrated to cities. Under this new regime, grain yields became lower, and the soil itself began to deteriorate. Gradually grain production was superseded by olive and vine culture, but both of these were comparatively new to Roman Italy and required new farming techniques. The problem confronting Rome was social and political as well as agricultural. In *De agri cultura*, Cato vigorously attacked both aspects of the problem.

Cato had adopted olive and vine culture on his own farm in the Tusculum Hills, but he was still a conservative who honored above all others the traditional virtues of the Roman farmer. He believed that the newer type of farming required as much hard work and intelligence as his ancestors had applied to their grainfields. When they praised a man "they called him a good farmer and a good tiller of the soil, and the one who received this compliment was considered to have received

the highest praise."² Cato goaded his contemporaries to hard work through his own example no less than through his writings.

Cato was born of an honorable plebeian family and was brought up at the plow. He rose early, worked in the fields with his servants and slaves, lived economically, and abstained from excess in all things, except hard work. Originally his name was Marcus Porcius Priscus, but he was later given the name Cato because of his accomplishments, for the Romans called a skilled and experienced man *catus*.³ Besides being a good farmer, he was a lawyer. He never refused to be counsel for those who needed him and, without recompense, ably pleaded the cases of neighboring farmers. In this way he trained his powers of expression and became the most eloquent orator of his day.

At the age of seventeen, Cato had already distinguished himself as a soldier in the campaign against Hannibal. Later he fought in Greece and North Africa, but he always fought extravagance and laziness among the Romans as hard as he fought the enemy. Although the other soldiers preferred wine, Cato drank water to which he sometimes added a little vinegar. Only when exhausted would he touch wine.

His character did not endear Cato to his companions, but they always respected him. He was successively elected to higher and more responsible positions in the government until, in 184 B.C., he was chosen for the highest post of all—that of Censor. This suited his temperament perfectly, but his contemporaries said of him:

Porcius, who snarls at all in every place
With his grey eyes, and with his fiery face,
Even after death will scarce admitted be
Into the infernal realms by Hecate.⁴

² Marcus Porcius Cato, *De agri cultura*, preface, in *Cato the Censor on Farming*, translated by Ernest Brehaut, 1 (New York, 1933).

³ Plutarchus, . . . *Plutarch's Lives*, the translation called Dryden's corrected from the Greek and revised by A. H. Clough, 2:3, 4, 7 (New national ed., New York, 1914).

⁴ *Ibid.*, 2:348.

¹ This article is one of a series on pioneer soil conservationists of the western Mediterranean world that was prepared by the author while a member of the staff of the U. S. Soil Conservation Service. For the titles of the articles already published, see *Agricultural History*, 18:35, 153 (January, October 1944).—Editor.

As Cato's political and social contacts increased, he felt more strongly the need for simple life and hard work, particularly among those who owned the nation's most valuable possession—the soil. The soil, he said, was given to husbandmen not to be scoured and swept away but to be sown and reaped for generations. His treatise on agriculture was written after the conclusion of his term of office as Censor and was based on long experience with both the land and the people of Rome. He wrote many other books, including precepts for his son and a history of Rome. None of these has survived, but it is to the credit of Rome that his agricultural writings were preserved and for centuries served as a guide to farm management.

In Italy, wheat was originally a lowland crop; slopes were reserved for pasture and woodland, and erosion was slight. Wheat was planted in the fall before the beginning of the winter rains and harvested in the late spring after the rains had ceased. Although the lowlands were dry in summer, they were frequently damp and poorly drained during the growing season. For this reason lowland wheat was often attacked by rust. By Cato's time, rust had become so widespread that only the hardier spelt and millet could be grown where the soil was damp. Consequently, wheat was raised on higher lands that were free from rust but more subject to erosion.

This was one of the reasons why farmers, generally, complained that the land was becoming poorer and that agriculture was no longer profitable. Cato had no patience with these complaints. His own farm was a source of profit; there was no need for others to remain poor. It was the people rather than the land that had degenerated; the land needed only hard work and careful supervision. "Remember," he said, "that a farm is like a man—however great the income, if there is extravagance but little is left."⁵

From his own experience Cato found that low-growing vineyards were the greatest source of profit and after them came irrigated gardens, willow plantings, olive orchards, meadows, grain land, forest trees that provided foliage to feed the cattle and wood for the farm, vineyards trained

to grow upon trees,⁶ and lastly oak woods that supplied acorns for feeding the swine. Grain was well down on the list. The vineyards and olive orchards provided cash crops. Ranking even higher in importance than olives, were irrigated gardens from which the farm was fed, and willow plantings that were needed to supply props for the vineyards and material for baskets. Cato had nothing but contempt for a farmer who purchased anything that he could produce on his own land.

The two ranking cash crops were both grown on hillsides where they received the greatest amount of direct sunlight and where the land never became marshy. Since the rainfall flowed quickly from the slopes, it was necessary to retard surface run-off and retain the moisture in the land until it could drain off slowly and gradually through the soil. To insure an adequate supply of moisture vines were planted in trenches. Thereafter the soil was dug up each year before the onset of cold weather and removed to a depth of about a foot and a half. This prevented the development of shallow roots that sapped the strength of the vine and encouraged root growth downwards into the deeper and moister parts of the soil. In central and southern Italy the trenches were not completely refilled, so that they might catch the moisture and soil that washed down from the higher land. During the rainy winter season the trenches gradually filled with soil, and by the time of spring pruning the land was level and ready for hoeing and plowing. During the dry summer, little soil was washed from above, and no special precautions were taken to conserve either soil or run-off.

In old vineyards or where the soil was poor *ocinum* was planted between the vines but was not allowed to go to seed. The implication is that it was turned under and used as a green manure to build up the worn-out or eroded soil. There is some question about the identity of *ocinum*. Some modern authors maintain that it was the name given to field peas before the formation of pods. Others describe it as a mixture of field beans and vetch. All agree that it was a legume that improved the soil by the addition of free nitrogen as well as by providing humus. In addition, manure, chaff, wine-press refuse, and various types of compost were applied to the soil

⁶ This method of cultivation was employed only on villas located near larger cities.

⁵ Marcus Porcius Cato, *De agri cultura*, 1:6, in his *On Agriculture* . . . with an English translation by William Davis Hooper . . . revised by Harrison Boyd Ash, 5 (Cambridge, Mass., and London, 1934).

or placed in the bottom of the trenches where it would not be washed away.

The willows for props were an essential part of all vineyard farms. They were planted on land too wet for crops and along stream beds, where the roots protected the soil from erosion by running water. Giant reeds, used for baskets, were planted in similar situations and served much the same purpose.

Olive orchards, like vineyards, were still comparatively new to Roman Italy. During Cato's time, olives were rapidly replacing grain. Often the trees were planted in fields where grain production was continued, at least until the orchards were ready to bear. The trees were started in nursery beds and later transplanted to fields where they were placed 25 or 30 feet apart. In transplanting, as much of the soil as possible was allowed to cling to the roots of the tree, which was then placed in a hole about 4 feet in diameter and 3½ feet in depth. Every fall, at the grain-sowing season, the trees were trenched to a depth of a foot to catch the flow of soil and water from the slopes above and to reduce the number of shallow roots. Manure was placed in the bottom of the trenches and covered lightly with soil. The winter rains then carried the manure deeper into the ground. For three years, the soil around the tree was dug over again each month.

Cato advised every young farmer to begin his work with the planting and cultivating of his orchards and vineyards because they represented his chief source of income. During his early youth, he should also cultivate his field crops diligently so that the farm might be self-sustaining and so that the soil might continuously increase in productivity. No farmer need build his villa until all of the permanent planting was accomplished—possibly not until he had passed his thirty-sixth birthday.

Farm animals were a necessity—oxen to plow; mules and asses as beasts of burden; sheep to provide milk, cheese, and wool; and pigs to consume the whey left after cheese making. Sheep, in particular, provided the manure needed to maintain and restore the fertility of the soil. For the farmer who owned an olive orchard of 150 acres, Cato recommended a flock of 100 sheep.⁷ They were commonly allowed to graze among the

olive trees. Immediately after the grainfields were sown, the sheep were folded on the fields to provide manure. At other times, the manure was carefully stored and allowed to rot. To increase the quantity, waste from the olive presses, dregs left after wine making, and foliage of all sorts were added. When well rotted, the compost was placed in the olive and vine trenches and applied to meadows and grainfields. Nothing that would increase the fertility of the soil was wasted.

The farm animals were pastured during part of the year, but during the winter the sheep consumed fodder from the meadows, supplemented by the foliage of elms, oaks, poplars, and other trees. Because natural grass was scarce in the Italian Peninsula, great emphasis was placed on artificial meadows, both irrigated and dry. The roots of the grasses and legumes broke up the soil and helped to develop a soil structure that was erosion-resisting.

In general, crop rotation was not practiced by Cato or his contemporaries. The land was left fallow one year and planted in grain the next. Legumes were occasionally sown on the poorer parts of the grain lands to improve the soil and probably were plowed under as a green manure. Cato also said that lupines, field peas, and vetches, like animal manure and compost, improved land that was to be planted in grain. This suggests the beginning of a crop rotation. He also described some land as *restiblis*, or capable of being cropped every year. "Sow barley," he said, "on ground that has been fallowed or on ground that is able to yield a crop every year."⁸

Cato, however, laid greatest emphasis on good plowing. "What is it to till the land well? It is to plow well. What next? To plow. What is third? To manure."⁹ Again and again, Cato urged the farmers not to plow when the topsoil is wet for "If you do not beware of this you will lose three year's profit. . . ."¹⁰ Plowing began in the spring, usually on fallow land. The sandy and gravelly lands were plowed first, and in proportion to their heaviness and wetness the plowing was delayed on other soils.

If the land was swampy, ditches were dug to remove the excess water. These were V-shaped troughs 3 feet wide at the top, 4 feet deep, and

⁷ Cato, *De agri cultura*, 35:2, in *ibid.*, 59-60.

⁸ Cato, *De agri cultura*, 61:1, in *ibid.*, 81.

¹⁰ Cato, *De agri cultura*, 5:6, in *ibid.*, 14.

⁷ Cato, *De agri cultura*, 10:1, in Brehaut, *Cato the Censor on Farming*, 20-21.

a little more than a foot in breadth at the bottom. Where stones were available they were used to line the walls and base. Otherwise, willow twigs were placed in the drain, with their branches pointing in various directions. As the soil accumulated above them, the space between the branches remained open, thus forming a type of covered drain. These covered drains described by Cato were very similar to those of some of the early soil conservationists of Virginia, like John Taylor.¹¹

Even more important was the regulation of the run-off from the fall and winter rains. The dry soil, plowed before the onset of the rains, was particularly susceptible to sheet washing. As soon as the rains began, the whole household was sent into the fields with shovels and hoes to keep the ditches clear of silt. Every break was marked so that it could be repaired as soon as the storm was over. Unless such care was taken, the soil would be washed from some of the fields, and in other places growing plants would be covered and the crop lost.

Although Cato made no specific mention of wind erosion, his sense of economy led him to adopt practices that helped to reduce damage that might be caused by high winds. He constantly reminded farmers that winter was long and that meadows alone might not be sufficient to feed the livestock

until spring. No source of fodder should be neglected, no land wasted. Along the roadsides, between fields, and on rough land, farmers should plant trees. There was a ready market for any trimmings that were not consumed on the farm, and the foliage of the oak, elm, poplar, and even ivy would supplement the fodder from the meadows. At the same time the trees interrupted the sweep of the wind and reduced wind erosion during the dry summer and early fall.

Cato was as economical in his use of labor as he was with the land. On feast days, when other labor was prohibited, his slaves cleaned the drainage ditches, repaired the roads, weeded the meadows, or made bundles of the tree prunings. When rain prevented field work they mended the baskets and storage jars, carried manure to the compost heap, and cleaned the stables. Nothing that could be done by candlelight was done during daylight.

Cato disciplined himself as sternly as he disciplined his slaves. As Censor he was the official disciplinarian of the country. His fellow citizens did not love him but they set up a statue to him in the temple of the Goddess of Health dedicated to "Cato the Censor, who, by his good discipline and wise and temperate ordinances, reclaimed the Roman commonwealth when it was declining and sinking down into vice."¹² They honored him even more greatly when they heeded his advice to farmers and devoted their energies to the conservation of the soil and the improvement of agriculture.

¹² *Plutarch's Lives*, 2:374.

¹¹ A. R. Hall, "Early Erosion-Control Practices in Virginia," U. S. Department of Agriculture, *Miscellaneous Publication 256* (Washington, D. C., 1937); and Angus McDonald, "Early American Soil Conservationists," U. S. Department of Agriculture, *Miscellaneous Publication 449* (Washington, D. C., 1941).

LAND CLEARINGS AND ARTIFICIAL MEADOWS IN EIGHTEENTH-CENTURY POITOU

G. DEBIEN

Cairo, Egypt

Before the great agricultural transformations of the nineteenth century, artificial grasslands and certain fodder plants were not unknown in Haut-Poitou. The seigneurial books of receipts enumerate the dues on bean fodder. At the end of the seventeenth century, deeds of partition report "meadows of sainfoin" which at times surpassed, it seems, the average amount of land in hemp and saffron. Sainfoin replaced the saffron cultivated in the sixteenth century near the house, and the saffron fields disappeared gradually during the seventeenth century in the parishes bordering the Gartempe and Anglin rivers.

Two traits distinguished these old-time meadows. They were always enclosed by walls or hedges, and in the shelter of the farm buildings they formed a sort of extension of the kitchen garden. They were choice enclosures, and, like the hemp fields, abundantly manured and often broken up and laid out like orchards.

The privilege of their enclosure does not seem to have been the only reason that prevented them from being used for useless pasture purposes except in Haut-Poitou. A very clear determination on the part of their owners protected them. Ordinarily they were part of the reserves of the châteaux, like the parks, the fishing preserves, and the drive-ways. They were never far from the manorial centers nor entrusted to the care of ordinary farmers. They were trial plots of recent advent. They played no part in the rotations of crops and offered only a makeweight grass reserved for cattle or, better still, the horses of the masters.

In Normandy, Flanders, Thierache, and Gâtinais, artificial grasslands had long been widely sown.¹ There were also some around Paris, although on a smaller scale. Part was used for the milk supply of the capital. Burgundy had known "meadows for seed," and the word, burgundy, had

become almost synonymous with sainfoin in certain parts of Berry and the Middle Loire. Around Le Mans stock breeders had depended on clover for green and dry fodder since the sixteenth century. Clover seed was a feature in important exchanges. However, to the south in Touraine and Poitou, the example had not been followed at all. Bas-Poitou and the country around Niort were perhaps exceptions, but only a local study would reveal the details.

In Haut-Poitou the first large-scale attempts to cultivate clover and sainfoin were begun shortly after 1765. They are bound up with the history of the land clearings undertaken from 1760 on by several owners of large moorlands. The first big clearings were much more the result of a spontaneous movement than of the official encouragement and protection inaugurated by the royal declaration of 1766 which exempted the new projects from taxes. The extension of artificial meadows resulted from both private and administrative attempts.

Despite their vastness, the heaths of Poitou supported few animals. It was thought that the grass there was too acid and the dales too humid. Even sheep were not very numerous. Their mean stature and the mediocrity of their wool meant that they could in no way bear comparison with the sheep of the dryer heaths of Berry. The farms produced so little butter that the people had to buy it at fairs even though it was rancid, having come from far away. As Despommiers wrote: "In the greater part of the moors which stretch from Berry over most of Haut-Poitou, one can raise only a few sheep, for want of nourishment: they are small, and the wool of very poor quality. Misery appears in a thousand forms; the laborers, broken under the weight of their misfortunes, seem to be a different species than ordinary men; competition and the ambition to work are stifled by the impossibility of reaching any comfort; they see about them nothing but distress. . . ."²

¹ Lallier, "Comment les prairies artificielles étaient cultivées au xv^e siècle, et pourquoi le xix^e siècle croit les avoir inventées," Société archéologique de Sens, *Bulletin*, 7:19-48 (1861).

² Despommiers, *L'Art de s'enrichir promptement par l'agriculture*, 9 (ed. 2, Paris, 1770).

The lack of fodder reduced the number of teams at work and stopped improvement. The complaints of the farmers and the landowners united as one voice: "With more fodder, I would have more beasts, more beasts would give me more manure, and this manure would give me abundant harvests."³

The landowners who began the first big land clearings were forced to appeal for foreign labor from Flanders or Westfalen. The local plows, they had to acknowledge, would not open up and turn the moorland bastions of furze and virile heather. According to Despommiers:

The high price of land clearing thwarts the best intention. Half an arpent of grubbed ground is regarded as something of singular interest, the crop there is always plentiful; one feels so strongly the necessity of it that one expends astonishing efforts to achieve it. A laborer will pass his plow over a portion of the moor ten times, each time he grubs out some roots, using a pickaxe to finish off the most difficult ones, many oxen kill themselves at it, the man is horribly fatigued, and the work so unfavorable that at the second passing of the plow, one might think a herd of swine have been rooting in this ground.⁴

The Flemish hands were used to the labor of large-scale cultivation. Several came with their plows which had heavier wheels than the local *arreau*. The newcomers possessed the advantage of knowing how to smelt iron. It was hoped that they would teach the local laborers how to forge and drive the Flemish plow. The marquises of Pérusse, Vareilles, and Argenson were the first in Haut-Poitou to secure these laborers from the north. Rérac and Vareilles installed two Flemish families on their Availles clearings.⁵ During 1761-64, the Marquis de Pérusse settled ten German families from Juliers and the environs of Aachen on the lands of the seigneurie of Monthoiron.⁶ Twelve Flemish plows with double teams of four horses and six Limoges plows drawn by four oxen were brought to the fallows and heaths of Champfleury and the Grand-Fief-Bâtard and nearly 400 hectares were opened up for cultivation.

On these new lands, a continuous rotation of

cultures was begun, including a year of spring wheat followed by potatoes or swedes. This system was in lieu of the customary three-year rotation with one year of fallow that was applied to the grain lands in the Châtellerauld district. On several of the newly broken fields, Pérusse, the first in Haut-Poitou, tried to introduce clover into the rotation. His main difficulty was securing good seed. He had to get it from Flanders. The price—10 sous a pound—was high, and the quality did not correspond to the exigencies of his lands. It is not known how long Pérusse pursued his experiments, but it is probable that he cleared certain moors with the single aim of sowing them to clover or sainfoin. The registers of statements on land clearances would have shown this, but they were burned in 1906.

The efforts of this great innovator who was an agriculturist but not an agronomist were interrupted after 1769 by a series of bad harvests. Pérusse was away from Poitou for two years, and on his return his attention was taken up entirely by the difficulties of his Arcadian establishment. His great labors at Monthoiron, his attempts to introduce the broad cultivation of the north with horses and heavy plows on the plateaus of the Châtellerauld country, and his first sowings of clover over large expanses are the beginning of the agrarian revolution in Poitou. His contributions are worthy of a special study.⁷

Marc-René, Marquis d'Argenson (1722-1782), was the son of the minister of war and a nephew of the minister of foreign affairs. He was also a friend of Pérusse and, like him, much occupied with agriculture but because of different motives. Pérusse had turned to agriculture following his being wounded because he could no longer serve actively and because he had bought large moors. With him there was the ulterior motive of speculation. When Argenson asked permission of the minister of marine to install several German families from the Saint-Jean d'Angély depot on his lands at Les Ormes,⁸ he was trying to get manpower at a reasonable price. His aim was, therefore, immediately practical. Argenson kept the

³ *Ibid.*, 9.

⁴ *Ibid.*, 69.

⁵ Charles Passerat, "Les Plaines du Poitou," *Revue de géographie*, 3:301-303 (1909).

⁶ H. de Grimouard, "Un Curé philanthrope: l'abbé H. B. J. Coll," *Société des antiquaires de l'ouest, Poitiers, Bulletin* (ser. 3), 10:644-658 (1935).

⁷ For a sketch of Pérusse's activities, see Ernest Martin, *Les Exilés acadiens en France au XVIII^e siècle et leur établissement en Poitou*, 119-147 (Paris, 1936).

⁸ Jules Pellissou, "Une Colonie allemande en Saintonge (1763-1764)," *Société des archives historiques de la Saintonge et de l'Aunis, Bulletin*, 21:252-255 (1901).

post horses at Les Ormes, and the stables of the château contained many horses. The hay from the natural meadows along the Vienne River did not suffice. More had to be bought at a high price and then transported a long distance with special wagons. While still confronted with this problem, he was visited in 1765 by Despommiers who had been directed by the government to spread the use of a heavy large-wheeled plow that was suitable for clearing half-light-weight soils. It was on this visit that Despommiers made the following proposal. "From the château of Ormes to the summit of a small mountain stretches a slope of whitish soil, poor in appearance; oaks had been planted there, but nothing came of them. I proposed to M. le Marquis that he sow this extent in sainfoin, and that I would procure some good seed for him. I saw my proposition meet with an incredulous smile; how could such poor land, producing no grass, yield a meadow?"⁹

The hill selected by Despommiers was cleared and sown. In 1766, the crop was quite fair. It appeared marvelous in 1767, as there was a complete lack of hay in Haut-Poitou. It brought as high as 5 livres a quintal. At this price, no farm could feed its animals. Argenson, who had not manured his grubbed ground, collected 60 carts of sainfoin and 300 bushels of seed. After such a beginning, the way was open, and 30 arpents were to be sown to sainfoin in 1768.¹⁰

The disastrous hay harvests of 1767 and 1768 caused artificial meadows to be attempted everywhere on a small scale. It is difficult to estimate the size of the areas sown to clover or sainfoin, but it was the period of large land clearings. The rise of fodder prices and the encouragement openly given by the intendant, the Comte de Blossac, multiplied the sowings. One purpose of the labor expended on the large tracts was to provide forage. Thus, it was at Romagne near Civray where the Marquis de Morunnay opened up 800 acres of heathland and at Ferrière-en-Gençay where Mizac cleared 35 arpents of his Villiers wastelands.

The Marquis de la Chèze and the Chevalier, his

brother, had a piece of land at Avanton from which they secured almost nothing. "It was an abridged version of the whole moorland countryside, of the vast, useless expanses, an excellent soil but, for the owner, a dead loss," for the stony and dry ground produced scarcely any fodder. The little improved land had been exhausted by repeated cropping. There were few animals and they were undernourished, "hence little manure, and in consequence, wretched laborers."¹¹

Blossac sent Despommiers to Avanton where he was greeted with a sceptical smile as at Les Ormes. A new plow had already been tried out. It had taken two men to support the flange, and the man who held the handles had been so shaken by the vibrations due to the husks and roots that he soon had to be relieved. The team also tired very rapidly, and there were not enough oxen to carry out the job at an encouraging pace. The clearing looked more like beaten-out paths than a series of furrows.

Despommiers had a plow forged on the model of the one which he had used successfully in Gâtinais and Berry, and the land clearing at Avanton progressed much more rapidly and easily. The Chevalier de la Chèze, encouraged by this first success, undertook to reverse his whole crop rotation. His exhausted wheat lands were sown to clover, and all the new fields to corn. Despommiers had to leave Avanton before this step was taken, but the following letter from the Marquis, dated March 29, 1768, told him about the results:

I have been to my brother's place, monsieur, and he sings your praises and is making use of your plow with the greatest success. He is continuing his clearing operations on the moors where tough heather mixed with furze which, up to now could only be uprooted with a pickaxe, made this work so arduous and costly that he might have done better to buy an estate rather than clear them.

My grasses are fine and have succeeded well. The sainfoin will give a good harvest, if the drought does not check it as it did the crops last year.

My grains are also very fine; you know that I have worked with your plow and I attribute my success to this.

I forgot to tell you that this winter with your plow I cleared out some very old vines whose roots went very deep. Four oxen did the work almost as quickly as if there had been no obstacle. This clearing has made the finest field in the world; and after giving it a

⁹ Despommiers, *L'Art de s'enrichir promptement par l'agriculture*, 14.

¹⁰ *Ibid.*, 14-15, 111. It is interesting to note that the necessity of supplying the 140 horses of a post relay station led to the agricultural improvements of François Cretté-Palluel at Dugny near Paris. See Arthur Young, *Travels during the Years 1787, 1788, & 1789*, 1:85, 120, 126-127, 2:54, 62-63, 79, 85 (ed. 2, London, 1794).

¹¹ Despommiers, *L'Art de s'enrichir promptement par l'agriculture*, 103.

second going-over, I have had spring wheat sown, from which I am hoping for a good harvest.

I am counting on sowing this year on my Avanton land 52 arpents of sainfoin, and after that I will sow 200 arpents piece by piece; I see that I have no other means for repairing these lands which have been impoverished by the lack of manure and by the bad cultivation which has multiplied the parasitical and destructive plants to such an extent that no method can prevail there unless they are put in sainfoin.¹²

The Chevalier wrote to Despommiers directly the following October 13:

I should be pleased, monsieur, if you would come to bear witness to all the good you have done me. I have no longer any doubt about your plow. Nothing stops me. My land clearings are the finest, and I have superb clover; it cannot be finer in Flanders.

I cannot this year make use of the marl that you found for me. The frightful weather has deprived me of the opportunity of transporting it onto the land, but what is deferred is not lost. . . .¹³

The efforts of Des Francs at Magot and Saint-Georges at Reigner near La Trimouille were similarly successful. The project of the latter was not as extensive as that at Les Ormes, Monthoiron, or Avanton. It consisted of the enlargement of an old farm depending on the château. The task was carried out during the winters of 1767 and 1768 and had to be done by hand as a Limoges plow on which high hope had been placed proved almost useless. On instruction by the intendant, it seems, Despommiers went to Reigner. He arrived eight days before Christmas of 1767. Saint-Georges was absent, but Despommiers was able to advise the metayer who was using the Limoges plow and who was in charge of the clearing with pickaxes. The Limoges plow was modified by the peasant himself, and the work was resumed. "I again passed by La Trimouille on Christmas Day. M. de Saint-Georges made full acknowledgment to me. The metayer told me that what I had seen as moors destined to be cleared by hand in two years were already finished. This project brought about an infinite number of others."¹⁴

Without doubt it is well to distinguish between the hopes of Despommiers and reality. The plow he extolled sounds for all the world like a fairy's gift, but his testimony is full of instruction on the history of land clearing in Haut-Poitou. He

brought out some details on a delicate question that were otherwise lost when the Châtelleraut registers of land clearings were destroyed. He recorded the aims of some of the principal Poitou agriculturists, the technical means they put to work, the difficulties they met, and what they sowed. In short, his book indicates just how their labors were the beginning of the agricultural revolution.

It is clear that the tool needed for the purpose, namely a plow both strong enough and not too heavy, was lacking. The most enterprising of the land clearers, Pérusse, Argenson, and Chêze, although disposed to innovations and to Limoges or Flemish plows, returned, after diverse unfruitful attempts, to the old practice of breaking up ground with picks. Despommiers and his plow did not overcome the greatest obstacle to land clearing, namely the peasants' work habits. Techniques—and above all agricultural techniques—are not changed in a few weeks or even in a few years. Despommiers demonstrated the advantages of his instrument for opening up the small moors. He left a model at Les Ormes and Avanton, but he left too quickly. He did not make real pupils; it would have taken several seasons. In Poitou, the peasants forged and mounted their own plows. Two techniques had to be modified—that of the plow smith and that of the laborer. They imitated the model badly, sought to adapt it to their habits, and brought it back more or less to the heavy type they had been able to handle.¹⁵ However, Despommiers noted one exception: "All the moorland laborers have made their plows themselves, and nothing could be added to their exactness. A metayer of Reigner near La Trimouille is so clever at it that his agricultural instruments serve as models. The most instructed is consulted; he schools the laborers who, in their turn, render the same service to others."¹⁶

Gaining a place for clover and sainfoin in the crop cycles was doubtless still more difficult. The artificial meadows reported by Despommiers were all sown, let it be noted, on parts of seigneurial land preserves cultivated by farm hands. The great innovation was to impose them on farmers and metayers, but it was a long and costly operation which involved the extension of the cow barns and modifications of the lay-out of the farms. The response to these needs is found in notaries' records,

¹² *Ibid.*, 106-108.

¹³ *Ibid.*, 109.

¹⁴ *Ibid.*, 102.

¹⁵ *Ibid.*, 90, 96, 106.

¹⁶ *Ibid.*, 113.

in the comparison of series of leases, and in the detailed history of several lands.

There are, however, countless indications of the extensive spread of artificial meadows during 1770-1789 in Haut-Poitou and more especially perhaps in the Châtellerault country which was richer and more open to new ideas because of its proximity to Touraine. The instructions on the best methods of increasing the meadows that the administration distributed brought more results here. There came a time when conflicts broke out between the sowers of clover and lucerne and the tithe collectors, and the cahier of the seneschalsy of Châtellerault provides a clear echo of this

clash.¹⁷ This same source, while indicating that many of the artificial plantings were on old meadows and ran the risk of having tithes levied on them if a new law was not interposed, shows clearly that little clover and lucerne had been sown on cleared heathland and that the meadows did not have a very large place in the cycle of crops. On the eve of the French Revolution, it may be concluded that the most fecund innovation of the agricultural revolution, namely the introduction of grass in the systems of crop rotation, was still only on the horizon in Haut-Poitou.

¹⁷ *Archives parlementaires de 1787 à 1860* (série 1), 2:696 (Paris, 1868).

OPPOSITION TO PARLIAMENTARY ENCLOSURE IN EIGHTEENTH-CENTURY ENGLAND

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It is, of course, notorious, that the landed peasantry of England, and not without good reason, had no enthusiasm for the enclosure movement. Some well-known and very scholarly books of the left suggest that the change it involved was forced upon the countryside in the teeth of a bitterly resentful peasantry. It was quite usual, it is implied, for the opposition to exhaust all legal methods of protest. Then in despair at the extent to which the dice were loaded by the landed class in its possession of pulpit, courts, and parliament, the peasantry might well rise in revolt. Its ringleaders would then find in death or transportation a somewhat harsh punishment to be imposed merely because they had resisted by the only means in their power their own expropriation and that of their class. I suggest that, in general, this picture is overdrawn and that a remarkable feature of the eighteenth-century enclosure movement is the care with which it was carried out and the relatively small volume of organized protest which it aroused. It is not my purpose here to explain the fact, though doubtless various explanations could be adduced, but to prove it. Nor, of course, do I suggest that the enclosure movement of the eighteenth or any other century may have been as desirable socially as it certainly was economically.

Considering the House of Commons *Journals* whose seventy or eighty odd folio volumes, c.

1745-1845, record some of the steps taken in each parliamentary enclosure,¹ there are four or five principal types of entry which indicate that an enclosure project had met with some opposition. 1. The original enclosure petition may have been met by a counterpetition generally asking that the petitioners be heard by counsel against the bill. 2. Because of this or for other reasons, the bill may have been submitted to much amendment in committee or in the House. 3. The original bill may have been dropped, and another application submitted six, ten, twenty, or thirty years later. During the period of delay, no doubt often the enclosure promoters were buying up lands and toftsteads in order to secure in their own hands or those of their allies the necessary four-fifths or three-fourths majority in value in favor of enclosure. 4. When the bill was committed, the instruction may have been given to the committee, "That all

¹ For a list and evaluation of these volumes, see William Edward Tate, *Parliamentary Land Enclosures in the County of Nottingham during the 18th and 19th Centuries (1743-1868)*, 5-7 (Nottingham, 1935), and "The Commons' Journals as Sources of Information concerning the Eighteenth-Century Enclosure Movement," *Economic Journal*, 54:75-95 (April 1944).

The data used in the present article were gathered *en passant* during an inquiry supported by the Leverhulme Research Trustees, and it is my pleasant duty to thank them for their assistance.

have voices," i.e., that any member who wished to do so might attend the committee. This clearly made it easy to swamp opposition. 5. When the committee reported the bill, it had to state the value of the interests for, against, and neutral. Sometimes substantial dissentient minorities were recorded in this way.

Concerning entries of the first type, I do not propose to give details here since I have dealt with these at some length already.² As to entries of the second type, I have also written elsewhere at some length.³ It may be sufficient to note here that amendments were rarely in response to the counterpetitions of peasant proprietors, though bills were often amended to suit the wishes of persons of more lofty station. The Hammonds have given several instances of such amendment. For example, the Lords amended the bill for Ashelworth, Gloucestershire, in order that a dispute as to tithe between the Vicar of Ashelworth and the Rector of Hasfield could be referred to arbitration.⁴ Another Lords' amendment, but this time apparently not of special interest, was added to the Haute Huntre, Lincolnshire, bill of 1767. The Knaresborough, Yorkshire, amending bill of 1774 was amended in committee to allow certain persons to make their claims in proper form when they had omitted to do so.

A few more amending clauses were added to the bill for Laleham, Middlesex, in 1774. None of them seem to be of any importance save the one safeguarding the rights of the tithe owners. The Wakefield, Yorkshire, bill of 1793 was amended in committee in order to give the Earl of Strafford the nomination of a commissioner. The bill of 1768 for Winfrith Newburgh, Dorset, was amended at report stage by the addition of a clause settling the expenses to be paid by copyholders and lessees for lives. It will be seen that in none of the instances adduced does the bill appear to have been amended in response to the opposition of the smaller proprietors, though there are a few occasions where a bill was amended in the House, in committee, or in the Lords because of the opposition of more powerful interests.

² Tate, *Parliamentary Land Enclosures*, 12, and "Parliamentary Counter-Petitions during the Enclosures of the Eighteenth and Nineteenth Centuries," *English Historical Review*, 59:392-403 (September 1944).

³ Tate, *Parliamentary Land Enclosures*, 13.

⁴ J. L. and Barbara Hammond, *The Village Labourer, 1760-1832*, 333-397 (London, 1911).

Recently I have had occasion to go through the *Journals* entries of proceedings relating to the 170 enclosure petitions for Nottinghamshire during 1743-1826 which resulted in the passing of 131 acts,⁵ and I have tried to find out how often enclosure bills for this county received such amendment. A rough count indicates that at least 47 of the 131 successful bills were amended in the House, in committee, or in the Lords, or in two or all three of these. Often details of the amendments are given, and they are almost invariably of little importance. Sometimes they relate to the inclusion of lands other than those named in the petition,⁶ or to the trial at law of some contested point.⁷ Sometimes they give life tenants the right to charge their estates with this expense of enclosure,⁸ or contain saving clauses as to manorial rights.⁹ Very often the Lords' amendments were directed to the protection of vicarial or rectorial interests.¹⁰ In the whole of the 47 series of amendments there are but 2 which seem of any interest with reference to the point under discussion. The amendment to the Costock bill of 1760 consisted of "leave out 'in value'."¹¹ No copy of the bill has been found so it is not possible to say in what respect the opinion of the majority of the proprietors in number was to prevail. On the Calverton bill in 1779 the peasant opponents of the scheme secured by amendment the right to nominate one of five commissioners to represent their interests.¹² It is clear then that the entries of amendments in the House of Commons *Journals* rarely record even partially successful opposition by small landholders to enclosure proposals.

The 131 bills referred to represent a total of 170 petitions. In no less than 29 places the enclosure bill failed to pass in the session when it was introduced. Often, no doubt, it was mere failure to

⁵ These figures exclude the special case of the half dozen acts for Nottingham town dealt with in Tate, *Parliamentary Land Enclosures*, 129-135.

⁶ For examples, Misson (1760), Southwell and Westhorpe (1774), and Elkesley (1779). *Ibid.*, 31-33, 51-52, 66-67.

⁷ For examples, Misterton and Stockwith (1771) and Basford (1792). *Ibid.*, 46-47, 77-78.

⁸ For examples, Costock (1760) and Bleasby (1777). *Ibid.*, 29, 63-64.

⁹ For examples, Greasley (1774) and Bleasby (1777). *Ibid.*, 52, 63-64.

¹⁰ For instances, see *ibid.*, 14.

¹¹ *Ibid.*, 29.

¹² *Ibid.*, 65-66.

comply in detail with the standing orders of the House that caused the bill to be dropped. In such cases the bill was reintroduced in the next session, and better care was taken to comply with all formalities, so the bill was duly passed.¹³ Other cases appear more suspicious. The bill for Clipstone was introduced in 1802, 1803, and 1804 and passed in 1805. In other instances it is certain that there was something seriously wrong. Probably the promoters were short of their quantum of consent. A petition for Babworth was read in 1768, but the bill was never introduced, and the place never had a parliamentary enclosure. Here perhaps, it was found that enclosure "by agreement" was cheaper and equally effective. A bill for East Leake was introduced in 1781, and a petition read in 1786. There was a counterpetition to the 1781 bill, and the enclosure finally took place in 1798. The bill for Morton and Fiskerton in 1803 was dropped after the report stage, the bill being recommitted for amendments. No more was heard of it, and the places remained open until they were enclosed by agreement under the General Act of 1836.¹⁴ Here it seems clear that local opposition, whether or not expressed by counterpetition to Parliament, led to the temporary abandonment of the enclosure proposal. Presumably the promoters meanwhile took care to buy up wherever possible toftsteads and common-right lands, so as gradually to accumulate the quantum of consent they needed. Of the 14 instances discussed by the Hammonds, 5 are places where opposition successfully staved off enclosure, sometimes for a fairly long time.¹⁵ They are: Laleham, Middlesex, 1767 to 1774; Simpson, Bucks, 1762 to 1770; Stanwell, Middlesex, 1766 to 1789; Quainton, Bucks, 1801 to 1840; King's Sedgmoor, Somerset, 1775 to 1791.¹⁶ My table for Nottinghamshire gives 15:131 at the very most as the ratio of such instances to the total, but in all probability it was only a fraction of this. It is clear then that opposition to enclosure in general is evidenced by delay in passing a bill through the House of Commons. In fact, rather to my surprise, the 29 instances of delay in passing a local

enclosure bill include rather more than the average proportion of places where enclosure, when it did come, was accepted with complete unanimity by the interests affected. So either the delay was not, in general, due to opposition, or alternatively, when the bill once failed to pass, efforts were made either by the buying up of properties, or, in some other fashion, to secure a greater consensus of support for a future application.

Considering the fourth possibility, the Hammonds have suggested that the system of "opening the committees," while it "secured some sort of rough justice as between the powerful interests represented in Parliament . . . left the small proprietors and the cottagers . . . absolutely at the mercy of these conflicting forces."¹⁷ Of their 14 instances the entry "that all have voices" is recorded in 4 cases: Cheshunt, Herts, 1799; Louth, Lincolnshire, 1801; Winfrith Newburgh, Dorset, 1768; and Quainton, Bucks, 1801. In the proceedings on the 170 petitions, of which 131 resulted in acts reaching the statute book, the entry occurs but 6 times: Mattersey, 1770; Calverton, 1779; Basford, 1792; Kirkby-in-Ashfield, 1795; Styrrup, 1802; and Spalford and Wigsley, 1813. It occurs only in places where there was opposition to enclosure but by no means in all of these. This table will, I think, make the point clear:

Year	Contested Bills	"Ordered That All Have Voices"	Notes
1759	Everton	—	Opposition by small owners
1770	Mattersey	Mattersey	Opposition by small owners
1771	Misterton and Stockwith	—	Same included in owners of tithe-free land
1779	Calverton	Calverton	Opposition by small owners and by Earl of Chesterfield
1781	East Leake	—	Opposition by Sir Thomas Parkyns
1792	—	Basford	Dispute between Mr. Sanders and Duke of Newcastle
1795	Kirkby-in-Ashfield	Kirkby-in-Ashfield	Dispute between T. Webb Edge, Esq., and Duke of Portland

¹³ For examples, the bill for Rempstone was introduced in 1767 and passed in 1768; for Misterton and Stockwith, 1770 and 1771; for Cropwell Butler, 1786 and 1787; and Weston, 1794 and 1796.

¹⁴ For details, see *ibid.*, 184-185.

¹⁵ Six out of fifteen, if the Otmoor enclosure (1801-14) is included. Hammond, *The Village Labourer*, 89-91.

¹⁶ *Ibid.*, 364-368, 374-383, 393-397.

¹⁷ *Ibid.*, 46.

Year	Contested Bills	"Ordered That All Have Voices"	Notes
1796	Lenton and Radford	—	Dispute as to race-course
1802	—	Styrrup	Probably dispute between Viscount Galway and Duke of Newcastle
1803	Morton and Fiskerton	—	Opposition by small owners
1813	Spalford and Wigsley	Spalford and Wigsley	Dispute between lord of manor and Samuel Russell Collet, Esq.

In the Mattersey instance the motion seems certainly to have been initiated in order to stifle small-holder opposition. For Calverton it may have been for this purpose or to allow the Duke of Newcastle and/or the Duke of Portland to settle a dispute with the Earl of Chesterfield. For Basford the motion permitted Sanders who claimed the manor to mass his friends in opposition to the Duke of Newcastle's claim, and for Kirkby-in-Ashfield it allowed Edge to press his claim that the compensation (25 percent in lieu of manorial rights) allowed to the Duke of Portland was excessive. There is no record of opposition to the Styrrup bill in the House, but an earlier petition by Lord Galway, the principal proprietor, had been dropped after the bill was brought in, and this bill was prepared on the petition of the Duke of Newcastle. Apparently Viscount Galway and the Duke may have been at issue on the terms of the bill. Anyhow, if so, they came to terms during its passage, since it was accepted virtually unanimously by the proprietors, the opponents representing only £4 of £90. The Spalford and Wigsley bill was petitioned for by the lord of the manor, and against by Samuel Russell Collet, lord of the neighboring manor of Swinethorpe, Lincolnshire. It is clear then that sometimes this entry does not occur concerning places where there was certainly genuine popular opposition to enclosure and conversely that it is found sometimes for places where there was no appreciable popular opposition to enclosure. It is, therefore, of little use for the purpose at hand.

Let us consider the fifth possibility, that of estimating the strength of the opposition by the proportion of estates belonging to dissentient proprietors as certified by the committee at the report stage. A good deal has been written concerning the unfitness of an eighteenth-century parliamentary committee as a tribunal for considering the property rights of small landowners. Here

again the most detailed account available of the matter is to be found in the work of the Hammonds.¹⁸ They have pointed out quite truly that the suffrages of the proprietors were "not counted but weighed." It was the *value* of the property concerned, and not the *number* of proprietors, which was taken into account by the committee in determining whether the scheme had or had not the necessary three-fourths or four-fifths majority in its favor. The Hammonds have gone so far as to describe an imaginary parish having an enclosed estate of 800 acres, 1,000 acres of common, and 200 acres of open fields, wholly held by small proprietors, each with a selion or so and one common right. Here they have said the squire would have the four-fifths majority necessary to achieve enclosure, though his holding of open arable land was nil, and he was but one person in support, as against two hundred in opposition. In such a case, I suppose that if the squire's enclosed estate had retained the same common right as the cottagers' open strips this would be so. In the Hammonds' imaginary case, if the criterion of value was land tax assessment or annual value alone, as often it was, or if a common right on the waste was held in right say of a couple of acres of enclosed land, or in respect of the same area of open land, a situation such as they have described might have arisen. For a variety of reasons I doubt whether there ever occurred any instance even remotely approaching this.

Curtler stated a similar case—that of a single proprietor having in his hands more than three-fourths or four-fifths of the property in a parish—and pointed out that, if he was also lord of the manor and impropiator, or if he could obtain the consent of these and the vicar, he could enclose more or less upon his own terms.¹⁹ Curtler stated, however, that there is little trace of such enclosures in the printed acts. Perhaps Paul Mantoux was nearer the mark when he said that although the *Journals* contain many instances of enclosures accepted, according to the committee, with complete unanimity by the persons interested, "All the Acts of Enclosure on the Statute Book, without exception, are evidence of so many cases when the unanimous consent of the land-owners could not be secured."²⁰

In my own county, where there is much evidence

¹⁸ *Ibid.*, 49–52.

¹⁹ W. H. R. Curtler, *The Enclosure and Redistribution of Our Land*, 153 (Oxford, 1920).

²⁰ Paul Mantoux, *The Industrial Revolution in the Eighteenth Century*, 170 (London, 1928).

of opposition to enclosure, there is none of an injustice a hundredth part so gross as that suggested. The same is true of the other detailed instances given by the Hammonds where ratios in favor and against are: Cartmel, Lancashire, 1796, 2:1; Histon and Impington, Cambridge, 1801, 7:2; Bishopstone, Wilts, 1809, 5:2; Raunds, Northants, 1797, 4:1; Laleham, Middlesex (unsuccessful bill), 1767, 17:2; Louth, Lincolnshire, 1801, 2:1; Simpson, Bucks, 1770, 3:2; and Quainton, Bucks (unsuccessful bill), 1801, committee's statement of the vote, 5:1, but counterpetitioners' statement 1:1. Probably in most of these instances and certainly in some, the committee had concluded that the enclosure should be sanctioned by ignoring altogether the neutral votes. For example, at Raunds, there was a high proportion of neutrals, and such an amendment of the calculations altered the vote from less than 4:1 in favor to about 7:1, or well over the generally accepted figure needed for enclosure. At Histon and Impington, the original figures were in acres, 3,680:1,020, *i.e.*, 7:2. On the recommittal of the bill, the figures were stated in land tax assessment, 188:116. Actually this is a much lower proportion, so whatever the motive of the committee in restating the quantum of consent, it can hardly have been an intention to deceive the House into believing the bill more popular than it really was. More serious suspicion of maneuvering in committee lies at Bishopstone, Wilts, where "by some ingenious actuarial calculation of the reversionary interest of the lord of the manor and the interest of the tithe-owner, the 1079 acres held by [dissentient] copyholders are written down to 474 acres," and thus the vote for is increased from 5:2 to 5:1.²¹

In my own county, Nottinghamshire, I have failed to find any instances even remotely approaching the half dozen dealt with by the Hammonds. Unless Nottinghamshire is a very unusual county in this respect, I cannot but conclude that their instances are in the highest degree exceptional and that it would be quite unfair to suppose them typical of the country in general. Of 131 enclosure acts relating to Nottinghamshire between 1743 and 1826, data are altogether lacking for 2 bills, 63 are reported as having proprietors not unanimously in agreement for enclosure, and 66, or more than half, are said to have proprietors unanimously in favor. To the 63 successful bills may be added the Morton and Fiskerton bill of 1803, which reached the report stage and was then

dropped. Of these the data in the *Journals* are incomplete for four—namely Hawksworth, 1760; Lowdham, 1765; West Retford, 1774; and Basford, 1792—since neutral proprietors are not declared separately from opponents to the bills. I have been at some pains to estimate the strength of local opposition as declared at the report stage of the remaining 60 bills.²² It is clear then that if the *Journals* are to be relied upon, in rather more than half of the villages of the county (66:131) the enclosure bills were accepted unanimously. The ratios of acquiescence and opposition for sixty of the places where unanimous agreement could not be reached during 1759–1819 are here tabulated, with some difficulty, in terms of thirteen property units.

Property Units	For	Against	Neutral	Total	Ratio
Common rights.	120	0	8	128	
Sheepgates.....	3,995	245	0	4,240	16:1
Beastgates.....	1,008	76	5	1,089	13:1
Horsegates.....	48	4	0	52	12:1
Toftsteads, etc..	326	44	13	383	8:1
Cottages, etc....	208	19	4	231	11:1
Messuages.....	96	6	11	113	16:1
Messuages, cottages, and toftsteads....	255	11	1	267	23:1
Oxgangs.....	645	60	4	709	11:1
Yardlands.....	46	5	0	51	9:1
Acres.....	31,108	2,110	760	33,978	15:1
Annual value...	£1,679	£183	£142	£2,004	12:1
Annual land tax	£1,901	£181	£53	£2,135	11:1

Even in places where opposition of small owners might be expected, the table shows that the preponderance of the vote in favor of enclosure varies from complete unanimity for common rights to 11:1 for cottages, 16:1 for messuages, and 8:1 for toftsteads. Curiously enough, messuages, cottages, and toftsteads, lumped together in another series of reports, show a vote of 23:1. No doubt the figures here are swollen by the inclusion of substantial houses belonging to fairly prosperous people. The remaining units seem to show a remarkable—almost a suspiciously high—preponderance

²² According to Mantoux, *The Industrial Revolution*, 179, the small proprietors "would merely refuse to sign the petition drafted by their neighbours, the great landowners: even then, they would at once declare that they did not mean to oppose that petition . . . the villager . . . 'knew his betters.'" He added that "Such facts were very frequent." If this were true, one would find in many villages more neutrals than opponents. This, however, is not so, and the neutrals often gave very sensible reasons for their neutrality.

²¹ Hammond, *The Village Labourer*, 50–51.

of opinion in favor of enclosure, although the figures are drawn from sixty different enclosures with opposition in varying degrees ranging from Beeston, 1806, where there was £186 for and 6s. 10½d. against enclosure, to Blyth, 1814, the successful enclosure which had most opposition, and where expressed in terms of land tax assessment the figures are £178 12s. ¾d. for, £53 7s. 8½d. against, and £9 8s. 4d. neutral, in a total of £241 8s. 1½d., or a ratio of about 3½:1. It is also interesting to note the difference in the vote in favor of enclosure between the "conservatively minded" villages where the weight of the proprietors is expressed in oxgangs or yardlands (11:1 and 9:1 respectively), and the more up-to-date places where estates are expressed in acreage, land tax assessment, or annual value (15:1, 11:1, 12:1).

A fair conclusion from the table seems to be that the committees could not possibly have generally manipulated the units in which the quantum of consent was expressed, since the weight of proprietary opinion was overwhelmingly in favor of enclosure, in whatever units that weight was expressed. In Nottinghamshire at any rate, it appears that the picture of enclosure as forced from above by squire and parson upon a bitterly hostile countryside has little truth in it. Unless the parliamentary committees were in general composed of the most shameless and brazen liars, so that all entries in the *Journals* are a mere tissue of falsehoods, the

movement was accepted by majorities of anywhere from 8:1 to 23:1. Assuming that the 66 local acts, where the proprietors are reported as unanimously in favor, covered much the same area and population as these 59 acts and 1 bill, and that the 6 uncertain cases were in this respect about the average throughout the county, the ratios above quoted should be doubled. In Nottinghamshire, it may be assumed then that, during the enclosure movement of the eighteenth and early nineteenth centuries, the proprietor of 1 toftstead in 18, 1 messuage in 34, 1 cottage in 24, 1 oxgang in 24, 1 yardland in 20, 1 acre in 32, lands valued at £1 in £26, lands charged to the land tax at £1 in £24, and one house (of various classes) in 48, opposed the movement. This was not to the extent of feeing counsel to plea the case before a "dim and distant parliament of great landlords" but simply to that of refusal to sign petition or bill when it was brought forward for approval.²² If the Commons' *Journals* entries are of any value whatever, such opposition as there was must have been either marvelously small or remarkably unvocal.

²² So far as I know the most detailed study of the parliamentary proceedings upon enclosure bills and the extent to which they may have been unfair because of the property interests of the members is in my "Members of Parliament and the Proceedings upon Enclosure Bills," *Economic History Review*, 12:68-75 (1942).

A BRITISH STATISTICIAN OF 1854 ANALYZES THE WESTWARD MOVEMENT IN THE UNITED STATES

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From the very beginning of the Federal Government under the Constitution of 1787, those who made law for the American people were well aware that their constituents were markedly mobile. The legislators of the First Congress knew that there was then under way a movement of emigration from the older to the newer districts of the Union or its Territories. Though the term "westward movement" had not yet been coined, the elected representatives were familiar with the phenomenon itself. On occasion after occasion as they debated proposed legislation, they found themselves faced by one or another aspect of this tendency to emigrate.

Some few examples may be cited, drawn from

the House debates during the second session of the First Congress. In the course of the prolonged discussions over the proposed fiscal policies of the new Government, held in the spring months of 1790, incidental opportunities were afforded for spokesmen of the several sectional interests to exhibit their consciousness of the movements of interstate migration. When Theodore Sedgwick, a Representative from Massachusetts, deprecated New England's interest in western lands, his colleague from Connecticut, Roger Sherman, at once corrected the erroneous impression. "He differed with Mr. Sedgwick. He thought the lands would be an object with the New England people. They

are addicted to emigration as much as any part of the Union."¹

Elias Boudinot from New Jersey, a small State that could ill afford to lose any inhabitants, expressed his views succinctly: "The ability of the new Government she [New Jersey] fondly hoped would have eased the burthen, and calmed the minds of her citizens, who were daily leaving the State, to find a happier climate to the Northward and the Westward, where heavy taxation would not reach them. I hold up these circumstances of an individual State to show that she cannot go much further; every citizen she loses, leaves the incumbrance the greater on those who remain behind."²

This Representative from the Middle States took a solemn view of the situation, indeed. "Sir, if the debt is a just one against the United States, and we are able to pay it, I cannot admit the idea of a longer refusal; the delay of justice is a denial of justice. . . . But, sir, if you refuse it, and find you were wrong, you are doing an act of palpable injustice by which you may ruin thousands of your citizens, and depopulate your States, by driving the most valuable of them to seek an asylum in the wilds of the Ohio and Lake Erie."³

Theodoric Bland, who represented an eastern constituency in Virginia, expressed the point of view of the older and more thickly settled part of the South. "From the commencement of the war, great, nay, enormous emigrations [from Virginia] have taken place, and still continue. Kentucky is said to contain fifty or sixty thousand souls, nine tenths of which have emigrated from Virginia. It is said, and I believe with truth, that more than one-half of Georgia is peopled from Virginia by recent emigrations. The state of Franklin, the cession of which this House has just accepted, has been also chiefly peopled from Virginia, and is said to contain more than twenty thousand people. Large numbers have emigrated to other States, to avoid either being called into service, to obtain lands on easy terms, or to avoid taxation. What is now the situation of Virginia? The remaining citizens are to pay (unless the assumption takes place) the whole debt, while she, who has been termed the elder of the States, and not improperly may be termed the mother of those just mentioned, may not unaptly be compared to the Pelican, who

is represented as feeding her young with her life's blood, that is, with her citizens."⁴

Andrew Moore represented western Virginia; he soon replied to Bland. In the course of his refutation, Moore observed: "Another reason he has displayed is, that numbers of the citizens have emigrated from Virginia to Kentucky, North Carolina, and Georgia. It would be unjust that the remaining citizens should pay the debt as far as respects Kentucky. The reason will equally apply to Pennsylvania, North Carolina, and other States. *No more than one-third of the citizens of Kentucky are from Virginia* [italics added]."⁵

This cursory review indicates that Congressional spokesmen for the West and for the three Atlantic sections were in agreement that numbers of the American people were, indeed, on the march. But as soon as a legislator ventured to express opinions concerning the number of inhabitants his State had lost, and the identity of the States or Territories to which they had gone, he occupied anything but firm ground. Bland knew this; it is plain that he had done what he could in his speech to reconcile an honest opinion with a caution proper to the circumstances. And caution was necessary, for without a census, one man's guess would only provoke another man's reply. Bland said that Virginia had supplied nine-tenths of the Kentucky population. Moore conceded no more than a third. Who spoke closer to the truth?

The precise resolution of such differences of opinion rested on a fund of statistical data that had not yet been accumulated. For sixty years the reliable treatment of such matters, as they involved the emigration-immigration relationships between a particular State and other States, had to be postponed, because the statistical materials necessary were not being collected.

A revolutionary advance occurred in connection with the preparations for taking the Seventh Census in 1850. The schedules for this census were framed under the direction of a census board, and with the advice of some of the first statisticians of the country—among them Edward Jarvis, Lemuel Shattuck, Nahum Capen, Jesse Chickering, and others.⁶ Schedule 1 dealt with the inquiries to be addressed to the free inhabitants. For the first

¹ Speech, Mar. 30, 1790, in *ibid.*, 1533.

² Speech, Apr. 1, 1790, in *ibid.*, 1563.

³ Speech, Mar. 12, 1790, in *Annals of Congress*, 2:1487 (Washington, Gales & Seaton, 1834).

⁴ Speech, May 25, 1790, in *ibid.*, 1653-1654.

⁵ *Ibid.*, 1654-1655.

⁶ *The Seventh Census of the United States: 1850. Embracing a Statistical View of Each of the States and Territories . . .*, J. D. B. DeBow, Superintendent . . ., p. iv (Washington, Robert Armstrong, 1853).

time in a Federal census, the marshals were directed to put down for each free person his place of birth, naming the State or Territory of the Union, or the foreign country.⁷ This novel inquiry, the ninth under Schedule 1, afforded the administrative foundation for the collection of data from which interesting statistical conclusions were soon to be drawn, concerning the size and the direction of the currents of internal and foreign migration.

The enumeration of the population of the United States for the purposes of the Seventh Census was made during the summer of 1850, and the collected data were sent to the Census Office at Washington, there to be worked up. A preliminary statement of some of the results, a production of eight quarto pages, was published as a *Report of the Superintendent of Census, December 1, 1851* (Washington, 1851). Two years later the same authority issued *The Seventh Census. Report of the Superintendent of the Census for December 1, 1852; to which is Appended the Report for December 1, 1851. Printed by Order of the House of Representatives of the United States* (Washington, Robert Armstrong, 1853), a work of 160 octavo pages with the cover title, *Abstract of the Seventh Census*.

This volume contains the first statement of the results of the data concerning place of birth authorized by the ninth query of Schedule 1. The results were given to the public in two statistical tabulations, and some comments on them, by Joseph C. G. Kennedy, the Superintendent of the Census.

Table 1 on nativities is an assemblage of the data on the place of birth of the native-born population.⁸ It shows the number of persons resident in the country in 1850 who were, for instance, born in Pennsylvania and their distribution by States and Territories.

Table 2 on nativities presents the data concerning place of birth of the foreign-born residents of the country as they were distributed in 1850 among the States and Territories.⁹ It has enumerations for thirty foreign countries and geographical areas. The Superintendent's comment on this table has interest, for it indicates how statistical knowledge

could be applied to matters of political or economic controversy. He asserted: "We are thus enabled to discover, for the first time, of what our nation is composed. . . . This view of the living immigrant population is important, as serving to correct many extravagant notions concerning it which have attained extensive currency."¹⁰

Even more provocative are the Superintendent's comments upon Table 1, which may be given in his own words:

Another interesting branch of this inquiry is that which concerns the inter-migration of our native citizens among the States. The tables presenting a view of this movement will be most useful and valuable in tracing the progress of different portions of the country. The facts developed will show how far one section has impressed its own characteristics and peculiar customs on others. It is found that out of 17,736,792 free inhabitants, 4,112,433 have migrated and settled beyond the States of their birth. Three hundred and thirty-five thousand natives of Virginia, equal to 26 per cent. of the whole, have found homes outside of her own borders. South Carolina has sent forth 163,000, which is 36 per cent. of all native citizens of that State living in the United States at the date of the Census, and the very remarkable proportion of 59 per cent. of the number remaining in the State of their nativity. North Carolina has lost 261,575 free inhabitants, equal to 31 per cent., by emigration. Among the northern States, Vermont and Connecticut have contributed most largely to the settlement of other parts of the country. Their proportion, about 25 per cent. of their native citizens, would exceed, perhaps, that of either of the southern States already mentioned, were the number of slaves in the latter admitted as an element of the calculation. The roving tendency of our people is incident to the peculiar condition of their country, and each succeeding Census will prove that it is diminishing. When the fertile plains of the West shall have been filled up, and men of scanty means cannot by a mere change of location acquire a homestead, the inhabitants of each State will become comparatively stationary, and our countrymen will exhibit that attachment to the homes of their childhood, the want of which is sometimes cited as an unfavorable trait in our national character.¹¹

These comments by Superintendent Kennedy must always have a peculiar interest for the student of American populational mobility. They mark the beginning of verified and verifiable knowledge concerning the movements of that roving people, the Americans. The way had been prepared, at long last, for the scientific study of this aspect of

⁷ *Ibid.*, xii, xxii.

⁸ *The Seventh Census. Report of the Superintendent of the Census for December 1, 1852; to which is Appended the Report for December 1, 1851 . . .*, 16-17 (Washington, Robert Armstrong, 1853).

⁹ *Ibid.*, 18-19.

¹⁰ *Ibid.*, 13-14.

¹¹ *Ibid.*, 15.

American demography, and statistics was the tool that cleared the path. The period of factual ignorance, or of uninformed speculation, no matter how sincere, concerning the movements of Americans, was ended. It was now possible to assert with authority, as it had not been in 1790, for instance, or afterward, the number of the natives of Virginia who had settled in Georgia, Tennessee, or Kentucky.

Copies of the census volume containing these tables of nativity were soon distributed in this country and Europe for purposes of review. To that leading quarterly, the *Edinburgh Review*, went one of them, and it came in for careful attention there. A lengthy review article, thoughtful and well-informed, appeared in this periodical for July 1854, entitled "European Emigration to the United States." The anonymous reviewer paid his respects to three other publications, in addition to Kennedy's census volume.¹²

The portion of the article which dealt with Kennedy's report is given below. A reading of the excerpt will show, it is thought, that the anonymous author of it had closely studied the nativity tables in the report and had made a keen analysis of them, leading to an advance in thought concerning the phenomenon of American mobility of population. The reviewer, as a result of his statistical analysis and reflections thereon, had been led to think of the emigration to the west in a conceptual way. He asserted that "the whole migration appears to be governed by fixed laws." He spoke of "the . . . general law of a due westerly movement." Above particulars, and from a profusion of details, he had risen, as it were, on to an eminence, from which he could survey below the living streams of emigration, as they distributed themselves over a continent in accord, as he declared, with his "fixed laws." In the hands of this British writer an abstraction, a concept, of the westward movement was newly being elaborated, and on the basis of statistical analysis.

So much by way of introducing the excerpt, which is here presented.¹³

¹² Hugh Seymour Tremenhare, *Notes on Public Subjects, Made during a Tour in the United States and in Canada* (London, 1852); Great Britain, Parliament, House of Commons, *General Report of the Colonial Land and Emigration Commissioners* (12 vols., London, 1842-52); Edward Everett Hale, *Letters on Irish Emigration* (Boston, 1852).

¹³ For the entire article, see the *Edinburgh Review*,

Nations, like individuals, have their times for self-examination, when they pause, survey their positions, glance back upon the past, study the lessons of experience, and gird themselves up for the future. In the summer of 1850, about a year before the last enumeration of the population of Great Britain and Ireland, the Marshals of the United States of America were occupied simultaneously throughout the Republic in ascertaining the number, colour, nativity, sex, occupation, habits, and wealth of its scattered population, and in collecting information concerning its resources. The full results of this work still rest in the official receptacles; but the Report of the Superintendent made in December, 1852, gives an abstract of what the 'Seventh Census' will be when finished. The complete work, for some unknown cause, is yet unpublished.

A large part of Mr. Kennedy's Report is occupied with the subject of the foreign immigration into the United States. Although incomplete and sometimes, we believe, inaccurate, it furnishes the means for arriving at conclusions as to what has been and is, and gives us grounds for speculation as to what will be.

Most readers are familiar with the chart prefixed to modern editions of 'Gibbon's Decline and Fall,' exhibiting the march of the barbarian tribes upon Rome. The exaggerations of the press have accustomed us to speak of the modern 'Exodus' from famine, want, and plethora of labour, as if it were a similar movement. As ship after ship leaves Liverpool, London, Havre, Rotterdam, Hamburg, and Bremen, crowded with emigrants for America, we picture that country yielding itself a prey to an ignorant peasantry. We see them in imagination transferred to its shores, and invested by the magic of an oath, with the attributes of citizenship; and we turn with sorrow from the contemplation of the probable annihilation of the principles of Constitutionalism in the clashing with Democracy. Nothing can be more unfounded than such fears.

The United States' Census of 1790, taken before any acquisition of territory, exhibited a population of 3,221,930 freemen, and 697,897 slaves. There were then thirteen States, in twelve of which it appears that slavery existed: its feeble life in New York, New Jersey, Pennsylvania, Connecticut, and Rhode Island has long since been extinguished. In 1803, the French province of Louisiana, including most of the country west of the Mississippi, was added to the Union. Florida was purchased from Spain in 1819; Texas annexed in 1844 [*sic*]; and New Mexico and California acquired by conquest and treaty in 1848. Five slave States, two free States, and six territories have been created out of all this country. Two new free States have also been admitted to the Union from the territory of New

100:236-264 (July 1854). The part here quoted begins with the opening paragraph on p. 236 and continues through the first paragraph on p. 245. The footnotes are omitted.

England since the formation of the Federation, and 5 free and 4 slave States from the country west of the Alleghanies assigned to the Republic by the treaty of 1783; thus making in all at present 16 free States, with 142 representatives in Congress, and 32 senators; and 15 slave States, with 91 representatives and 30 senators.

The total population of the United States in 1850 was over twenty-three millions, of which nearly eighteen millions were native whites, over two millions were foreign born, 39,000 were of unknown nativities, and 3,200,000 were slaves. It appears that between 1840 and 1850, 1,569,850 foreigners arrived in the United States; from whence we should conclude, even in the absence of other evidence, that the emigration before 1840 was comparatively small. It began on a large scale only in 1847. From 1820 to 1830 the average number arriving was only 20,000 a year; from 1830 to 1846, about 70,000 a year. In 1847, the famine desolated Ireland; and the revolutions on the Continent, which unsettled the channels of labour, followed the next year. The immigration increased, under the pressure, to 240,000 in 1847, and to 300,000 in 1850; and it is now estimated at the Census Office that the 'total number of emigrants into the United States since 1790, living in 1850, together with descendants, amounted to 4,304,416,' which we shall assume to be the complete foreign addition to the population of the country between 1790 and 1850.

All this has, and is to have, a great effect upon the relations between slave and free labour. The free coloured population appears to have increased 10.96 per cent. during the decade just past. The slave population, 28.81 per cent.; and the whites, 38.28 per cent.

The regular decrease in the augmentation of the free blacks is one of the remarkable features of the progress of races in America. From 1790 to 1810, the Northern States, under the influence of climate and the spirit of freedom, engendered by the revolution, were emancipating, or preparing to emancipate, their slaves; and the ratio of increase of the free coloured population consequently greatly exceeded that of the whites or slaves. The following decade the percentage diminished; but was increased again, from 1820 to 1830, by the entire abolition of slavery in New York, and a large emancipation in New Jersey, Maryland, and Virginia. In the succeeding decade it fell off again; and in the last, as we see, it fails to reach 11 per cent.; and this, notwithstanding the manumission of 1500, and the flight of 1000 slaves a year, if the year 1850, for which alone returns on this head are made, be an example of the general course of things. In some of the States—New York for instance—the number has actually diminished; in others—like the New England States—it has done little more than remain stationary; while, in others, on the Canada borders, and with strong abolition sympathies,—Michigan and Ohio for instance—it has decidedly increased.

There can be but one solution to this—the degraded

social position into which the Negro is forced by the prejudices of the whites of the North, and particularly of European immigrants. There is no physical reason why the black race should not increase as fast, and faster even, than the white. The experience of the slave States proves this, where, in spite of a degradation for which no amount of personal comfort can compensate, they faithfully fulfil the Divine command to 'multiply and replenish the earth.' Sambo is naturally a jovial, good-natured, laughing fellow, full of fun, not without a relish for a practical joke, and ready always for a dance and a bit of banjo music in the open air—especially if Dinah be there, for whom it must be confessed he has a strong liking. He is too fond of his ease to be out of temper for a long time; too much a man of the world to work unless obliged to do so; and by far too much a gentleman to trouble his woolly pate with thinking a great deal. He is a bit of a 'swell,' we are sorry to say, and loves to deck his ebon beauties in bright reds, and blues, and yellows, but not without a rude idea of taste and harmony of colours—if such a thing may be seriously suggested; and so long as Dinah likes it, he cares little whether it be according to the rules of art. He has a certain natural delicacy in the midst of his coarseness which contrasts very favourably with the beer-drinking rudeness of the labourer of some countries nearer the meridian of Greenwich, and a remembrance of good treatment, which ensures his master against 'strikes,' as long as he does not strike first. And when he and Dinah at length become one, there seems to be naturally no good reason why woolly-pated 'picaninnies' [*sic*] should not be as thick around his cabin as ever carrot heads were on an Irish potato patch. In Massachusetts, for instance, they would seem to have every thing in their favour—freedom, plenty of work, equality of laws and rights; and yet his family has increased only 4.5 per cent. in the ten years. The truth is, free Sambo in the United States, with all his freedom and political equality, has no reality of either. His colour stamps him for ever in unjust popular prejudice, which is stronger than law, with the caste of labourer; and not labourer alone, but degraded labourer, whose mother, and brother, and cousin are slaves, and who ought to be one himself; and, if the truth must be told, all this makes Sambo rather a good-for-nothing fellow. He neglects his family, is unthrifty, gets behind-hand, and before long finds himself quite at the foot of the social ladder. Meanwhile Pat has been coming in from Ireland, and has stepped over him; and, in astonishment at finding somebody underneath himself, he becomes the worst tyrant that the poor black has to endure. The inveterate dislike of an Irishman to a Negro is as well known as it is remarkable.

But, while the free black of the North, in spite of his theoretically better condition, has barely held his own in some of the States, his southern cousin has been increasing his family at a great rate. Whether it be that, with plenty to eat, and, in the absence of care,

his shackles sit lightly on him, or whether it be that he stifles his sorrows in domestic pleasures, we do not stop to inquire. It appears that, from some cause, the natural increase of the slaves has been as great, and greater even, than that of the whites; so that, without foreign immigration, the relative numbers of the two races and the relative weight of the two sections of the Union, would not have been materially changed in the sixty years. We do not take into account the trifling difference in the proportion made directly by the acquisition of territory, as the total number of slaves and freemen was small in each case at the time of the annexation, and the effect upon the general result was more than balanced by the abolition of slavery in the North. Annexation has undoubtedly strengthened the 'institution,' by giving it new States to govern and new fields to cultivate; but not essentially by an actual addition to the number of slaves. Neither do we take into special account the larger percentage of the slave increase from 1800 to 1810, created by the prospective abolition of the Slave Trade in 1808; because the proportion of slaves to whites of native descent, in 1810, was almost exactly the same as in 1850. In 1800 the proportion was as 1 to 4.94; in 1810 as 1 to 4.78; and in 1850 as 1 to 4.76, deducting in each case the number of immigrants and descendants of immigrants since 1790 from the total white population. This great increase of a population held unjustly in a state of bondage, with freedom and activity all around them, is a remarkable feature in history, and suggests the possibility at some future day of an attempt at a forcible reclaimer of their rights, when they shall decidedly outnumber their masters. If such a struggle should ever come it would be short-lived and deadly, and could terminate only in the annihilation of the weaker black.

Before 1794 it seemed that this species of labour was about to die out in the natural course of events. In three of the Northern States it had perished; in five more it lived only upon sufferance; and in the South public sentiment would have abolished it if a feasible way had been proposed. Whitney then invented the cotton-gin; and the export of cotton, in 1793 less than five hundred thousand pounds, trebled in 1794, increased to six millions in 1795, reached eighteen millions in 1800, two hundred and eighty millions in 1830, and nine hundred and twenty-seven millions in 1850. African bondage became profitable. The planters of Alabama, Mississippi, Georgia, and the Carolinas bear the sin before the world; but Liverpool, Lowell, Manchester, and New York furnish the money which prolongs and extends the system.

In spite of these influences so favourable to slavery, the foreign immigration is gradually affecting the balance of power in the Federation. In 1800 the total population of the Slave States was 48 per cent. of that of the Union, and their representation was 45 per cent. of the House. In 1830 they had but 45 per cent. of the population, and 41 per cent. of the representation; and in

1850 but 41 per cent. of the former, and 39 per cent. of the latter. It requires no prophet to foresee that the same disturbing causes will continue as long as the peasants and artisans of Europe can command cheap homes, high wages, and an improved social position in the New World as easily as they now do. The census enables us to follow their track across the Republic, and to see in what communities they rest. The results are curious and not altogether expected.

1. It appears that the immigration rests almost entirely in the free States. Of the 2,200,000 foreigners resident in the Union, only 305,000 are in the Slave States; and of these 127,000 are in the comparatively northern corn-growing States of Maryland, Virginia, Kentucky, and Missouri, and 66,000 in the commercial State of Louisiana.

2. It travels principally due west in a belt reaching from 36° or 37° N. to 43° or 44° N., including the central and southern parts of New England, the middle and north-western States, Maryland and Delaware, and the central and northern part of Virginia, Kentucky, and Missouri. The climate and production of this country are similar to those of Europe; the general ratio of health and average of life is higher notwithstanding the great floating European population, and the name of labourer is not degraded by a comparison with slaves.

3. Less than one-third of the total immigration has entered the Lake Country and the Valley of the Mississippi. The proportion of foreign population in New York and in Massachusetts is greater than in any western agricultural State except Wisconsin. It is also nearly as large as in California, a gold-seeking community from the world at large.

4. It principally consists of Irish, Germans, and English.

Of the English nearly five-eighths are to be found in the Atlantic free States, about one-third in the States of the north-west, and nearly all the residue in the northern slave States.

Three-fourths of the Irish stay in New England and the middle States (principally in Massachusetts, New York, and Pennsylvania), where the commercial and manufacturing interests are seated; and they are found in the south and west only where there are great public works in construction. They change their soil and their allegiance, but keep their nature intact. Unwilling in the New, as in the Old World, to guide their own destinies, they stay where another race furnishes food for their mouths, and labour for their hands, and takes to itself the substantial fruits of their industry. One love, however, is entirely weeded from their hearts. Their experience with the impoverishing potato-patch seems to have given them a distaste for agriculture; and, in a country where there is plenty of land and a sure harvest, they avoid almost entirely the pursuits to which they cling so tenaciously in Europe. Their numbers did not in 1850 reach a million,—not two-thirds of the

decrease in the Irish population during the last ten years.

The Germans are more energetic, or, rather, bring their energy to a better account. More than half their number are spread over the north-western States, Missouri and Kentucky, and more than one-third in New York and Pennsylvania. They stay, indeed, in the towns in great numbers, devoting themselves to mechanical arts and to trades; but a large proportion, also, if the census speaks truly, are to be found in the agricultural districts, where they fell the forest and turn up the prairie for themselves. Some years ago we remember to have seen a colony of German emigrants landed on the unfinished pier of an unbuilt city in Wisconsin. The pier has doubtless since been completed, and the city has its thousands; but then, a few driven piles and a quantity of scattered lumber marked the place of the former, and rectangular streets strewn with fresh felled timber, stretching into a primeval forest, showed where the latter was to be. The emigrants were bundled out upon the pier, and their boxes, chests, willow-fans for winnowing wheat by hand, spinning-wheels and primitive spades, scythes, and ploughs were tumbled after them. The poor women sat upon the boxes in the hot sun (it was in August) and cried at the desolate appearance of this, the gate to their Paradise, and the men tried in their rough way to comfort them. We leaned upon the 'guard,' looking at them as the boat steamed up Lake Michigan, and admired the simplicity which could bring their miserable utensils to such a country. Long before this the men have chased away the young grouse with American ploughs, and have fattened their cattle on the long grass of the prairie, and the women, putting away the spinning-wheels as relics of a by-gone existence, sit in the summer evenings under the honeysuckle and bignonia, which twist themselves over the porch, and sing to their children of the *Vaterland* without a sigh of regret.

The valley of the Mississippi and the Upper Lake Country has not only gained in an unexampled manner, but has been almost created within the half-century. Where, in 1800, there were less than 400,000 persons clustered around the rude forts that protected them from the Indians, with only 7 per cent. of the representation in Congress, there are now nearly ten millions cultivating 53,000,000 acres of improved land, and represented by 42 per cent. of the House. If the European immigration has remained in the Atlantic States, the inquiry naturally arises, Whence comes this western population?

The oracle of the census again responds. All the while there has been a native emigration twice as great as the foreign. Washington Irving's pleasant sketch of the Yankee seems to be literally true,—a discontented being, unwilling to stay quietly in the home of his birth, and seeking an unknown better in some new sphere. Just when he begins to grasp it,—when

the 'stumps' are uprooted and the corn grows plentifully,—when his finished barns are filled, and his log cabin takes to itself some look of comfort,—he sells his 'improvements' at a profit, shoulders his axe, harnesses his horse to a covered cart, into which he packs his wife and a staircase of children, and marches to some spot still further West, where he may begin anew. Thus the whole country is in motion; Massachusetts removes to Maine, and Maine to Massachusetts; New York visits Pennsylvania, and Pennsylvania returns the compliment. Virginia crosses to Kentucky, and Kentucky pushes over into Illinois. Yet the whole migration appears to be governed by fixed laws, producing ascertainable results.

1. In the free States the general movement is due west,—from New York, for instance, to Michigan and Wisconsin, and from Pennsylvania to Ohio. From Maine and New Hampshire it goes principally to Massachusetts, from the other New England States more to New York than elsewhere: but natives of all are found in the free north-west States in large numbers. The middle States are also represented there by an aggregate of 758,020, in addition to which they interchange very extensively with each other; the people of the small States, particularly, going to the great cities of their neighbours. The emigration from the northern Atlantic States into the six north-western States amounts to nearly 1,200,000. And so strong is this passion for motion, that the West itself supplies a population to the still further West. Ohio sends 215,000 to the three States beyond her; Indiana retains 120,000 from Ohio, but sends on 50,000 of her own; Illinois takes 95,000 from Ohio and Indiana, and gives 7,000 to young Iowa; and that State, though not twenty years redeemed from the Indians, gains nearly 60,000 by the restlessness of the three, and, in its turn, breaks over the too feeble barriers of the Rocky Mountains to supply Utah and Oregon with 1,200 natives of Iowa.

2. The native emigration from their central slave States follows the same general law of a due westerly movement: but whether governed by the wish to escape from slavery, or by what other motive, it takes also a partial north-west direction into the free States. Maryland, Virginia, North Carolina, Tennessee, and Kentucky, furnish 360,000 of the native population of the north-west.

3. The movement in the planting States has been mostly within themselves, taking a south-westerly and westerly direction from the older lands of South Carolina and Georgia, to the uplands of Alabama and Mississippi. The emigration from South Carolina alone is nearly 68 per cent. of the white population remaining within her borders.

4. The American-born population of Texas comes principally from the slave States, that of California from the free States, and that of the territories more from the free than from the slave.

5. It appears from a study of the course of both

emigrations, that they mainly benefit the belt of country above described. New England loses nearly 400,000 of native population; but the foreign elements reduce the actual loss to 92,000. The middle States lose 600,000 of native population, but have so large a foreign addition, that the balance-sheet shows a gain of nearly 414,000. The central slave States lose 600,000 natives; the foreign emigration reduces their actual loss to 400,000. The planting States and Texas gain 300,000, of which nearly 200,000 are native. The north-west gains 1,900,000, of which 1,330,000 are native.

Can the identity of this stimulating thinker be disclosed? It might appear that shrouded in anonymity as he is, we cannot hope to pierce his disguise. But clues afforded by the substance of the article provide something of a basis for the attempt to unravel his secret. It may be assumed that he was a Britisher, one who had formerly traveled in the United States and Canada, including the country of the Upper Lakes, since he referred to the shores of Wisconsin. His prose tells us that he was a practised man of the pen and a specialist in the then rather new field of statistics. In John MacGregor, a Scot, we have a statistical writer and traveler whose career supplies facts that make possible, if not probable, an attribution of this review to him. Let us take a quick glance at his life's story.

John MacGregor was born at Drynie, Ross-shire, Scotland, in 1797. He emigrated to Canada in his youth, settling on Prince Edward Island, where, entering politics, he served as a member of the House of Assembly and in 1823 as high sheriff.¹⁴ Endowed with an inquiring mind, he learned how to fuse the results of his investigations into something that had value in the market. He began to write books that met a practical need of the day—information on what emigrants from Great Britain could expect to find in the King's dominions in America. In 1828 his book entitled *Historical and Descriptive Sketches of the Maritime Colonies of British America* was published in London and was speedily followed in 1829 by *Observations on Emigration to British America*. His *British America*, in two volumes, appeared in 1832. All of these books were based on study of earlier works on the subject, supplemented by travels in Canada and parts of the United States. In the preface to *British America* he asserted: "The descriptive

parts of the work are principally from personal observation; or, when I was prevented from visiting any of the places that I have described, I have had recourse to the best resident authorities. . . ."¹⁵

From the first MacGregor, a native of an old, settled, and conservative country, took note of the characteristic roving tendencies of the inhabitants of America. In *Historical and Descriptive Sketches of the Maritime Colonies of British America* he inserted a pen portrait of what may be called the professional backwoodsmen. They specialized in the laborious effort of clearing a new farm in the wilderness, built houses and barns, but sold the land and improvements at the first opportunity. "When this is accomplished, they probably travel one, two, or three hundred miles before they settle on another wood-farm, which they clear, build on, and dispose of in the same manner as the first."¹⁶

In *British America* he again noted the process of internal migration and commented upon it:

The cool indifference, but calculating determination, with which an American moves from the seaboard, or the Old States, to the back countries, where he can secure plenty of land for his children to settle around him, is remarkable. Nothing, however, is more common. A whole colony sometimes depart together; and, on arriving at the spot in the wilderness that answers their views, immediately commence the operations of cutting down the trees, and erecting houses; and a town, with its streets, and all the component parts of an American embryo settlement, such as a meeting-house, blacksmith's forge, saw-mill, corn-mill, shops, and taverns, appear on the banks of a river, where a forest occupied the ground a few months before.¹⁷

Further on in the course of the same work MacGregor gave an account of a journey he made up the St. Lawrence Valley, along the northern shore of Lake Erie to the river Detroit, through Lake St. Clair, beyond Lake Huron and Georgian Bay to Lakes Michigan and Superior. An excerpt from this narrative indicates how conscious MacGregor was of the westward movement:

Beyond Goderich [on the eastern shore of Lake Huron in Ontario], if we except one or two military stations, the posts of the Hudson Bay Company, and the small settlements which have arisen from Lord Selkirk's foundation at Red River, the vast regions from Lake Huron to the Pacific are all still in primeval wilderness,

¹⁵ *British America*, 1:viii (Edinburgh and London, 1832).

¹⁶ *Historical and Descriptive Sketches*, 262.

¹⁷ *British America*, 1:50-51.

¹⁴ *Dictionary of National Biography*, 12:540 (Oxford, 1922).

and still to be inhabited and cultivated by Europeans. That emigration from the east will subdue, inhabit, and cultivate the far western wilderness is not to be doubted. We have only to reflect on the progress made by Europeans, in defiance of the most formidable difficulties, in penetrating and subduing the wilderness, from the time the first permanent settlement was formed at James' River to the present day, to agree with the following observations which I extracted from a paper printed at Buffalo.

"The Far West"—where is the west, and what are its bounds? But a few years have passed since our thriving town (then a rude hamlet) stood upon the further confines of the rising west. Still beyond there did indeed exist an ideal realm of future greatness—a matted and mighty forest. . . . Here and there it was dotted with a settlement of whites, clustered together for mutual assistance and mutual defence. . . .

"But the solitude has been penetrated, the forest has been overwhelmed by the towering wave of emigration. . . . Ours is no longer a western settlement; our children are surrounded by the comforts, the blessings, and the elegances of life, where their fathers found only hardship, privation, and want. The 'westward' is onward, still onward, but where? . . . The tall forest, the prowling beast . . . are alike borne down, trampled and destroyed by this everlasting scramble for the west. This course of empire may, must be stayed, when the shore of the Pacific has been reached, and the intermediate distance reclaimed and populated. But before these are effected, how mighty must be the growth of our republic! Already the annual tourist, who was wont to exhaust all his rambling desires in reaching the 'Falls,' disdains so slight an excursion; he must visit 'the west,' and Green Bay or Fort Winnebago is now his resting-place. Another year and even these will be left behind, and the ever-receding west must be pursued over succeeding rivers, and mountains, and plains, until the 'western tour' shall terminate, by necessity, at the mouth of the Oregon."¹⁸

MacGregor, as one of these travelers, certainly got as far as "Mickillimakinak," the navigation of which strait he asserted was deep and safe. His remarks concerning Lake Michigan strongly suggest that he had seen those waters at least as far as Green Bay.¹⁹

About 1832 MacGregor returned to England where he gained the friendship of James Deacon Hume (1774-1842).²⁰ Hume had just completed for the British Government the codification and publication in six parts of the commercial customs

laws of the realm.²¹ He was an official of the British central administration who did much valuable work over a long period of years. In codifying the laws of the customs, a task in which he contrived to bring order out of chaos, Hume was led to consider undertaking a comparable work in the related field of commercial statistics. This task which he envisaged, loomed large before him. He foresaw the need of a youthful associate to undertake this formidable labor. The man of nearly sixty had confidence in, and friendship for, young MacGregor, who was encouraged by Hume to turn himself into a statistician and a compiler of statistics. It was a new field, and MacGregor with Hume's backing, made this his main concern for the rest of his life. In 1840, when Hume retired as one of the joint secretaries to the Board of Trade, MacGregor succeeded him in the position.²²

The industrious Scot fathered numerous statistical works, mammoth productions for the most part characterized by lengthy titles. Of these, certain selected volumes only will be noted. After traveling extensively on the Continent, MacGregor published *My Note-Book* in three volumes at London in 1835. It was his initial work in the field.²³ He followed this with the first volume of a work ambitiously planned as *The Resources and Statistics of All Nations, Exhibiting the Geographical Position and Natural Resources of All Countries* (London, 1835). Whatever the reason, no more volumes of this set were published.

MacGregor's *Commercial Statistics: A Digest of the Productive Resources, Commercial Legislation, Customs Tariffs . . . of All Nations*, made up a work of five large octavo volumes. These were issued in London between 1844 and 1850 and enjoyed a second edition in the latter year. The third volume of this series is devoted to the United States, Texas, California, and Central and South America. Its materials are still of interest to historians.

In twenty-three parts and an appendix, a set, in folio this time, was published in London by MacGregor with the general title of *Commercial*

²¹ James D. Hume, *The Laws of the Customs* (6 Geo. IV, c. 106-116, etc.), 6 parts (London, 1825-32), and *The Law of the Customs* (3 and 4 Gul. IV, c. 50-60, etc.), 3 parts (London, 1833-36).

²² *Dictionary of National Biography*, 10:229, 12:540.

²³ A work not available to the writer.

¹⁸ *Ibid.*, 2:553-555.

¹⁹ *Ibid.*, 555.

²⁰ On Hume, see *Dictionary of National Biography*, 10:229 (Oxford, 1921).

Tariffs and Regulations of the Several States of Europe and America, together with the Commercial Treaties between England and Foreign Countries . . .

The publication extended over the years 1841 to 1850. Part 15 (London, 1846) dealt with the United States and Part 16 with Mexico.

The industry that expressed itself in such leviathans of statistical literature won its due reward. MacGregor gained rank as a British statistician of merit. When Superintendent Kennedy, on official business, went abroad in the summer of 1851, he met the leading British statisticians of the day, men such as William Farr of the Census Office, George Graham, Registrar-General of England, George Richardson Porter of the Board of Trade, Charles Babbage and MacGregor, all of whose names were recorded in his diary.²⁴

In his fiftieth year, MacGregor published in two thick volumes *The Progress of America, from the Discovery by Columbus to the Year 1846*. The first volume treated the subject matter under "Historical and Statistical" as a subtitle; the second, under "Geographical and Statistical." These were volumes of wide scope, based on a massive accumulation of facts. Of peculiar interest for the issue under discussion is the account he gave concerning the "Extension of Territory, Area, and Progress of the Population of the United States."²⁵ He presented figures concerning the growth of the States on the Atlantic slope and compared these with the growth of the States beyond the mountains. The latest figures at his disposal were of course those drawn from the Census of 1840. He concluded that the West was growing more rapidly than the East and explained the difference in rates of growth by the operation

of forces of migration. The Atlantic States lost more by emigration to the West than they gained from incoming Europeans. The West, by contrast, grew simultaneously by attracting Americans from the Atlantic slope and Europeans from beyond the ocean.²⁶

These conclusions were set down in 1847, when but three years remained till the American Census of 1850 should be taken. We can conjecture that MacGregor looked forward to ascertaining the progress the westward movement had made during the intervening decade.

At this point, narration ends. In closing it, one may observe, that in favor of attributing the anonymous review to MacGregor one takes into account these considerations:

1. The anonymous writer had traveled to the Upper Lakes. MacGregor, also, had visited them.

2. The anonymous writer was interested in and keenly conscious of the westward movement. MacGregor was quite aware of this movement, in which he, too, was interested.

3. The anonymous writer and MacGregor both possessed an interest in and a knowledge of United States history and statistics.

4. The quality of the statistical analysis and reasoning exhibited in the review article was not beyond the professional attainments of MacGregor.

5. The subject of emigration from Europe was a topic which possessed interest not only for the anonymous writer but also for the Scot.

These points considered, it may reasonably be concluded that the probable author of the review article of 1854 was John MacGregor, whose death occurred in April 1857.²⁷

²⁶ *Ibid.*, 82.

²⁷ For courtesies graciously extended to the writer while this research was under way, cordial acknowledgement is made to Everett E. Edwards, U. S. Department of Agriculture; Helen M. Morison, University of California Library, Berkeley; Walter F. Willcox, Cornell University; and Charlotte Carmody, Library, U. S. Department of Commerce.

²⁴ Transcript of Diary by J. C. G. Kennedy, 1851. This document possesses marked interest for students of the history of British-American statistical relations. In December 1943 Walter F. Willcox obliged the writer by the loan of a copy, now in the Division of Manuscripts, Library of Congress.

²⁵ *The Progress of America*, 2:70-103 (London, 1847).

THE ELISHA F. KING FAMILY PLANTERS OF THE ALABAMA BLACK BELT

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Among the earliest settlers of Perry County in the black-belt region of Alabama was Elisha F. King who arrived from Georgia in 1819 to take up cheap land which became available shortly after Alabama attained statehood.¹ He immediately began to enter land in the county and within a few years was among the largest holders of land and slaves in the State. In his rise from the position of an obscure settler to a place of financial and social prominence, he seems typical of the more intrepid persons who aided so materially in developing Alabama into the leading cotton-producing State in the country.² This study is, therefore, devoted to the methods by which King and his family obtained their property, the general procedure they followed in the operation of their plantations, and particularly their business activities.³

When King arrived in Perry County, the agricultural region of Alabama recognized as the most desirable was the bend of the Tennessee River in North Alabama. The area was the most densely populated in the State, and it was probably for this reason that King decided to settle in South Alabama, where an abundance of cheap government land was available. In his purchases of land he demonstrated the usual insatiable desire

for its possession which was characteristic of most men of his type who settled in the Lower South during the early decades of the nineteenth century. From the 1,028.76 acres originally entered in 1820 he increased his holdings more than sevenfold by 1852. He left 7,995.94 acres to his heirs. In only one year did he fail to maintain or increase his acreage.⁴ The first outright purchase of land was not made until 1830. By this time it had become evident that the black-belt regions of Alabama could be utilized advantageously for the production of cotton. Grain crops had been the staples of the State when King arrived there, and corn had been the chief crop of those settlers who had preceded him to Perry County. Before his arrival, however, some cotton had been produced, and as early as 1817 at least one cotton gin was in operation.⁵ During the 1820s cotton gradually superseded corn as the chief staple in the pine lands of the county. Then, when a new cotton which withstood a blight that had previously prevented profitable cotton production in the black belt was introduced,⁶ the planters in and around the area, including the Perry County black belt, began a race for possession.

In Perry County there are five areas which may be considered completely black belt on the basis of soil structure.⁷ They contain a total of 180 irregular sections of land, comprising 112,565 acres. Some of this land had been taken up before 1830, but the amount was relatively small. In 1819, the year of statehood, only 5,497 and a

¹ Elisha F. King was the son of Wooly King. Family Bible of the Rhoda B. King Family, in possession of Mrs. Thad Davis, Sr., of Marion, Ala.; Thomas M. Owen, *History of Alabama and Dictionary of Alabama Biography*, 3:980 (Chicago, 1921).

² King was active in the affairs of the Methodist churches in Hamburg and Marion, Ala. He and his brother, Edwin D., were among the founders and members of the board of trustees of the Marion Female Institute, a Methodist college founded in 1836 and continued until 1918. He was a supporter of Howard College, founded at Marion in 1842 and continued there until it was moved to Birmingham in 1887-88. Samuel A. Townes, *The History of Marion*, 52, 60 (Marion, 1844); *Howard College Bulletin*, 98:22 (Birmingham, 1940-41).

³ Research for this study was made possible through Southern grants-in-aid from the Social Science Research Council. One of the main sources is the Elisha F. King Papers in the possession of Miss Clara Barker of Marion.

⁴ Tract Book, 48, 97, 119, 152, 153, 154, 173, 187; Deed Record, B:35, 42, 135, 205, 206, 561, 562, 615, 645, 729, 800; C:76; D:182; E:19, 309, 547; F:423, 596; H:325, 441, 442, 477; I:4, 430; K:423, 554. King paid \$39,275.45 for 5,404.075 of his acres.

⁵ *Marion Standard*, Apr. 2, 1909.

⁶ See Thomas Perkins Abernethy, *The Formative Period in Alabama, 1815-1828*, 57-58 (Montgomery, 1922); and Charles S. Davis, *The Cotton Kingdom in Alabama*, 36, 37 (Montgomery, 1939).

⁷ They are: township 18, north, ranges 6, 7, 8, east; township 17, north, range 6, east; and township 16, north, range 6, east.

fraction acres had been bought, and 5 sections of this total had been reserved by the State for educational purposes. From 1820 to 1829 inclusive, only 11,921 acres were purchased. Then, from 1830 through 1835, of the remaining 95,147 black-belt acres, the amazing total of 91,394 acres was bought. In 1830 alone, the amount entered at land offices was 31,128.84 acres.⁸ The results locally of the final appreciation of the black belt's potentialities is partially described by the following portion of a "Conversation with an Old Settler":

I came to Perry County in 1832 with Anderson West [who had settled in the county in 1817], who was speculating in Negroes, and brought a drove with him at the time. Passing through the Creek Indians, we camped at Mt. Meigs, west of Montgomery. Farmers were picking cotton and clearing land,—the axes were cutting until midnight, and an hour before day next morning. Camped near Marion Saturday night. Negroes were cutting timber all night until sunrise Sunday. Marion was thronged with people on Sunday, talking about cotton and "niggers." Every man we met, either wanted to buy a "nigger" or take a drink.⁹

After 1835, the rest of the black-belt land was purchased intermittently until by the end of 1852 practically all land in the county was privately owned.¹⁰

Two other developments in the 1830s also evidence the shift to cotton culture in South Alabama. One was the rapid growth of Mobile, at the mouth of the unusually extensive Alabama-Tombigbee river systems, as a cotton market.¹¹ In October 1835, for example, it was

reported from Mobile that the preceding cotton season was one of much prosperity.

The planters have had good crops and high prices The business of the city has kept equal pace with the resources of the interior. Our population has increased at least one fourth, and still is increasing, . . . rents have nearly doubled. Although very early, there are abundant signs of a prosperous and active business The number of strangers is already great.¹²

The other noteworthy development was the rapid increase of cotton production in the State, particularly in South Alabama. Only 7,000 bales were made there in 1818, and the total had risen only to 80,329 bales in 1829. The production in the State more than tripled between 1830 and 1840, mainly as a result of the extraordinary and spectacular increase in the black belt and South Alabama, and in the latter the total annual bales skyrocketed from 102,684 in 1830 to 445,725 in 1840. From 1841 to 1851, inclusive, South Alabama produced 4,571,061 bales.¹³

While Alabama was so greatly increasing its cultivation of cotton, Elisha F. King was busy

¹² *Mobile Shipping and Commercial List*, Oct. 3, 1835, in William A. Jones Papers, in possession of Miss Emma Jones and Mrs. Mary J. Lowrey, Perry County. In September 1851, another report from Mobile stated: "The number of buildings completed is greater than in any preceding year, and still, so great is the demand for them, rents are advancing. Public buildings are now under contract in the city, the estimated cost of which is over half a million dollars. Nine new steamboats are also building for the Mobile trade the coming year. Much of this city activity is doubtless owing to the increase in the receipts of cotton at this port of over 100,000 bales [in 1851 over 1850], and to the uninterrupted health which has uniformly prevailed." *Mobile Journal of Commerce Letter-Sheet Price-Current*, Sept. 1, 1851, in *ibid.* For a discussion of commercial activity at New Orleans, the only Southern market to overshadow Mobile in the ante-bellum period, see Wendell H. Stephenson, "Ante-Bellum New Orleans as an Agricultural Focus," *Agricultural History*, 15:161-174 (1941).

¹³ *Mobile Shipping and Commercial List*, Oct. 3, 1835; *Mobile Register Shipping List and Prices-Current*, Dec. 7, 1839; *Mobile Journal of Commerce Letter-Sheet Price-Current*, Sept. 1, 1851, in Elisha F. King and William A. Jones Papers. Of the 4,571,061 bales produced in South Alabama from 1841 to 1851 inclusive, 3,933,558 bales were shipped to Mobile from 1843 to 1851 inclusive. From 1841 to 1851 inclusive, 4,230,730 bales were exported from Mobile. *Ibid.*

⁸ Tract Book, 1-16, 97-109, 151-162.

⁹ *Marion Standard*, Apr. 9, 1909. See Clanton W. Williams, "Early Ante-Bellum Montgomery: A Black-Belt Constituency," *Journal of Southern History*, 7:495-525 (1941), for a discussion of the growth of a more important town in another part of the Alabama black belt.

¹⁰ Tract Book, 1-36, 97-108, 152-162.

¹¹ Mobile's population increased from 3,194 in 1830 to 12,672 in 1840. U. S. Bureau of the Census, *Fifteenth Census, 1930, Population*, 1:66. In May 1840, Mobile was described as "a city of Cotton. It is to be found in the quay warehouses, sidewalks every where. They have recd upwards of 400,000 bales there this season & will probably reach half a million. There is more on hand now than any preceding year at this season. Prices are low & must be worse Mobile has abt 15,000 inhabitants in Winter" William H. Wills, "A Southern Traveler's Diary in 1840," *Southern History Association, Publications*, 8:136-137 (1904).

acquiring more land and more slaves to produce more cotton. He was not a land speculator in the usual sense of buying land, holding it until prices rose, and then selling it at a profit. He bought land to raise cotton; and throughout his residence in Alabama he sold only 250 acres. Dozens of due bills and drafts were given in payment for land and on accounts incurred in the operation of his plantations, always to be paid with expected profits from the sale of cotton not yet produced. As a result of the credit economy under which he and his contemporaries labored, most of his accounts current were paid in this manner. During the 1830s and 40s, he extended his credit by thousands of dollars, and only a very few acres of land were obtained by cash payments. Although this unsound business practice, based upon the unpredictable fluctuating price of cotton not yet made, was the chief factor in the failure of some Southern planters, in King's case the gamble worked advantageously. At his death he owned nearly 8,000 acres of farm land, 186 slaves, and a large number of town lots in Marion, Alabama. His property, other than farm land and slaves, was valued at \$106,202.11.¹⁴

At least as early as 1846, King was operating four plantations. His "home place" consisted of about 2,500 acres. Another plantation, known as the "Rich place," was also under his management. "The lower place" was conducted by his son, Edwin W.¹⁵ The fourth plantation, on which 35 slaves and 10 mules usually worked, was located in Bibb County, Alabama, near Centerville. Overseers were hired to manage the work of the slaves at the various places, and at least once a week either Elisha F. or his son rode to the plantations not under their immediate direction to check on operations. Both father and son lived at the home place, near the town of Hamburg, and from there distributed plantation supplies such as foodstuffs, clothing, farm implements, and many

other necessities. Slaves were located at the several plantations to conduct the necessary work, but whenever a labor shortage developed or it was imperative to get out a crop without delay they were shifted temporarily to take up the slack wherever it existed.¹⁶

In obtaining slaves, King followed the same procedure as in the acquisition of land. He extended his credit in almost every purchase. A single example of this practice seems sufficient to indicate one of his methods in purchasing slaves. In April 1840, he bought 27 Negroes from the Marion firm of King, Upson and Company and signed ten notes in payment for the hands.¹⁷ Each note provided that he "pay Edwin W. King or bearer twenty two thousand four hundred and Eighty three pounds merchantable gind and baled Cotton delivered in the port of Mobile for value recd this 16th April 1840." The notes were due on March 1 of each year from 1841 through 1845.¹⁸ All slaves were of course not purchased with cotton, and King had extensive relations with neighboring planters and with slave traders who annually journeyed to the black belt. In his slave purchases, as in obtaining land on credit, King was very fortunate. According to his will, made in 1852, he bequeathed jointly 109 Negroes to his widow and son, 42 to one granddaughter, and 35 to another. Later in the year these slaves were valued at \$113,703.¹⁹

Serving as agents for King and other planters in their purchases of land and slaves, as well as in nearly all financial transactions, were cotton factors, with headquarters at Mobile. The first available record of a money transaction between King and a factor seems typical of one phase of

¹⁴ King Diary, *passim*; Edwin W. King Papers, in possession of Miss Clara Barker, Marion.

¹⁷ At this time, Edwin W. King was a member of the mercantile establishment of King, Upson and Company. The firm either owned or possessed mortgages on the slaves sold to Elisha F. King. The latter had earlier sponsored his son in the firm, having, on Sept. 19, 1837, endorsed notes for the company to the amounts of \$6,299, due May 20, 1839, and \$6,745.55, due May 20, 1840. The firm disbanded on Apr. 29, 1840, when its accounts, amounting to \$55,539.16, were sold to another Marion merchant, Napoleon Lockett. Elisha F. King Papers; Edwin W. King Papers; Perry County, Deed Record, E:364-371.

¹⁸ A bill of sale in the Elisha F. King Papers indicates that these Negroes were valued at \$11,500.

¹⁹ Perry County, Will Book, 278-282; Perry County, Inventory of Estates, E:553-558.

¹⁴ Elisha F. King Papers; Perry County, Inventory of Estates, E:553-558; Perry County, Will Book, 278-282.

¹⁵ Edwin W. King was born on Nov. 28, 1813 in Perry County. After attending the Georgia Athens College, Athens, he returned home and took over operation of the Rich place. Family Bible of the Rhoda B. King Family; Edwin W. King to Elisha F. King, May 4, 1829, in Elisha F. King Papers; Edwin W. King Diary, May 23, 24, 1846, in possession of Mrs. Leta B. Hart, Marion. The King Diary contains daily records of events at the King plantations for May 1, 1846-Mar. 21, 1849, May 13, 1850-Dec. 31, 1853, Jan. 1, 1856-Dec. 31, 1857, and Apr. 9, 1859-May 31, 1860.

his relations with his agents. In September 1828, he needed \$2,700 for the purchase of some land, and he requested that his factor advance him the sum. His agent, H. G. Holt of Mobile, immediately replied, "You can draw on us at sixty or ninety days sight" through the United States Bank at Mobile.²⁰ Holt continued to handle King's affairs until 1830, when the planter turned to a firm operated by James Taylor. Either in 1832 or the following year, his business was given to Alexander Pope and Sons, one of the largest cotton factorage houses in Alabama.²¹ In 1836 his agent was the company of Lea and Langdon, the chief members of which had moved to Mobile from Perry County. During 1838 and 1839 his factor was John R. Goree. King probably gave his business to Goree because he wished to patronize a former neighbor and a kinsman. Goree had lived in Perry County and was King's grandson-in-law. For some reason King sold his cotton and bought supplies through the Mobile firm of Stringfellow and Hanna in 1840. The members of this company were also from Perry County and continued as King's agents at least until 1845. During the late forties and until 1852, King's cotton sales and other business affairs were transacted by the firm of McDowell and Withers,²² which was one of the most active factorage houses in Mobile. Throughout the 1850s McDowell and Withers handled the business of some of the largest planters in Perry County. Indeed, it seems to have become the most popular firm among the planters of the county.²³

Through these agents King bought such articles as cotton bagging, rope, twine, iron, tin, axes, tools, medicines, shoes, candles, nails, household furniture, dry goods, flour and other staples, and books. Information on prices of plantation supplies was of major importance to the planter and was usually forwarded weekly through the columns of a *Price-Current*, published in Mobile. At least once a year, ordinarily in January or February,

²⁰ H. G. Holt to Elisha F. King, Sept. 8, 1828, Elisha F. King Papers.

²¹ Davis, *Cotton Kingdom in Alabama*, 150.

²² Elisha F. King Papers.

²³ Among the company's Perry County clientele were Elisha F., Edwin D., and Edwin W. King, Hugh Davis, and William A., Thomas T., and Thaddeus Jones. *Ibid.*; William A. Jones Papers; Hugh Davis Papers, in possession of Mrs. L. I. Davis, Perry County; for other information on Hugh Davis, see Weymouth T. Jordan, ed., "System of Farming at Beaver Bend," Alabama, 1862," *Journal of Southern History*, 7:76-84 (1941).

King made a leisurely business trip to Mobile to check over his accounts with factors and to buy plantation supplies. While there he also usually managed to take in the sights. Each year, too, he was visited at least three or four times by a representative of his factor.²⁴ In these ways, as well as by talking over business problems and market conditions with his friends and neighbors, a planter managed to keep somewhat abreast of prices of both plantation produce and supplies.²⁵ King's factors also made payments of his accounts

²⁴ Elisha F. King Papers. Most black-belt planters bought supplies either from merchants in small towns near their plantations or in Mobile. Some had relations with factors and merchants in New Orleans and Savannah, although this seems to have been the case especially in the years before Mobile became such an active cotton center. Beginning in the 1820s, Mobile soon became the most important trade center for the black-belt planters. Mell A. Frazer, "Early History of Steamboats in Alabama," in *Alabama Polytechnic Institute Historical Studies*, 4 (Auburn, 1907). Samuel H. Fowlkes, a Marion merchant and local planter, is known to have gone to New York City in 1847 and each winter thereafter through 1856. He was back again in 1866 after the war had closed. While in New York he bought merchandise for his store and supplies for his own plantation and for his friends. Samuel H. Fowlkes to Mary A. Fowlkes, Feb. 23, 1847, Feb. 22, 1854, Feb. 26, 1856, Feb. 22, 1866, in Samuel H. Fowlkes Papers, in possession of Edward Lee, Sylacagua, Alabama. Members of the Mobile factorage house of McDowell, Withers and Company also went to New York City each year in the 1850s. McDowell, Withers and Company to Edwin W. King, June 21, 1858, in Edwin W. King Papers.

²⁵ Black-belt planters often complained of the changing conditions of the Mobile market. In answer to this dissatisfaction, the factors stated in the *Commercial Report & Mobile Price-Current*, Oct. 9, 1834: "With regard to the Mobile market, we have to remark, that it is one of the most fluctuating in the United States; necessarily so from its peculiar situation. Our market is more or less acted upon by every change in the markets of New York, New Orleans and Havana, in such articles as are here made use of; and the surplus quantity of an article today may reduce its price—and its scarcity tomorrow advance it. Hence it often occurs that by the time a price current is published and received in the interior, many changes have occurred in the market—or the Planter may send his friends here with an order for goods, which from a sudden change in the market, is filled at prices above his expectation, which subjects his friends to undue censure. To obviate this, we would suggest to our friends the propriety of always limiting in price; or if they are to consider the order an unlimited one, to express it as such." William A. Jones Papers.

current with firms in Mobile and Marion with which he did business. For example, on November 1, 1843, he presented three due bills to each of thirteen merchants and other creditors. A due bill was made payable to each individual on March 1, 1845, 1846, and 1847. The total amount of the bills was \$7,486.74. Later, in 1849, he gave twenty-one such bills amounting to \$9,993.87, all due on March 1, 1850. The bills were accepted by his factors when presented for payment and afterward deducted from the proceeds of King's cotton when it was sold in Mobile. In most cases throughout his career the same factor who handled his due bills and paid his supplies accounts also sold his cotton.²⁶ When the factor advanced money for payment of due bills or drafts, King, of course, paid interest. If he left any money with the factor, the money drew interest in King's behalf. In each case the rate amounted to 2.5 percent. In most years, unless he had invested too heavily in land or slaves, he maintained a favorable balance with his factors; and in this connection it is worthy of note that he was different from some of his contemporaries. He did not end his life in debt to his factor.²⁷

The most important function of the Alabama factor was the sale of cotton shipped to him by the planters of the interior. Mobile was the natural outlet for the staple, and most sales were concluded there. On occasion, however, especially during the 1830s, some Alabama planters sent cotton elsewhere, some even experimenting with shipping direct to England for sale. The firm of Alexander Pope and Sons was probably more active in this phase of the cotton trade than any other in Mobile. A letter of February 1, 1834 from this company to King shows that he was among those who at-

tempted to increase profits by direct shipments to foreign markets:

We hand you the Weights of your Seventy Bales of Cotton and those of the 40 Bales belonging to Mr. E. W. King. They were Shipped on board the Platina for Liverpool on the 1st instant and the following is the outline of our directions which you can direct us to alter in time if you do not approve of them. They were that the Cotton should be held on to, or the Sales delayed untill the dealers in the article in Liverpool should be fully informed as to the extent of the crop of the United States for the present Season or untill the 1st of August next unless they could previously sell so as to nett the owners here 14 or 15 Cents²⁸

No record is available of the outcome of this venture. Likewise, it is not known if King ever shipped any cotton directly to Europe for sale after this experiment in 1834. There is also no evidence in his papers to show that, although the charges of factors were high, direct sale by planters usually returned less profit than through agents.

Throughout his career, except in 1834 and possibly in 1835, King shipped his cotton by wagon or flatboat to the town of Cahawba, on the Alabama River, thence by water to Mobile, where the cotton was sold. On receiving the shipments all charges due for bill of lading, freight, weighing, drayage, wharfage, storage, mending, and river and fire insurance were debited by the factor against King. When a sale was completed, the factor submitted an account of the charges, the number of bales and pounds sold, price per pound and total price received, and deducted charges due, as well as 2.5 percent commission, and reported the net proceeds credited to King's account. This information was forwarded on separate reports of individual sales, and on March 1 of each year at the end of the cotton season an annual statement of sales was submitted. Interest at 2.5 percent was charged on all moneys expended by the factor in payment of accounts with merchants, and the balance due was noted. Unfortunately, complete records of King's cotton sales are not available. Sale reports of 1,438 bales sold by Mobile factors in fifteen of the years between 1829 and 1852, however, have been located. The 1,438 bales, weighing 660,833 pounds, brought gross receipts of \$57,923.72, or an average of 8.07 cents per pound. Factors' commissions amounted to \$1,448.08. All charges were \$3,504.74. Net proceeds were \$54,418.98. Sales of an

²⁶ The Elisha F. King Papers contain hundreds of statements of accounts which King received from various business establishments.

²⁷ Davis, *Cotton Kingdom in Alabama*, 169-189, contains, in part, the conclusion that plantation operation in ante-bellum Alabama was unprofitable. The book emphasizes the activities of four planters: Charles Crommelin, William P. Gould, James A. Tait, and James Thornton. The present writer wishes that Davis had examined available materials concerning the activities of some of the successful Perry County planters, particularly John T. Barron, L. Q. C. DeYampart, William A., Thad, and Thomas T. Jones, Elisha F., Edwin D., and Edwin W. King, J. K. C. Pool, Sherod Sanders, and Daniel O. White.

²⁸ Elisha F. King Papers.

additional 1,060 bales in the same period, although poundage, gross receipts, and charges are unknown, brought net proceeds of \$45,869.46. Thus, sales of 2,498 bales completed in less than half of King's career as a planter, resulted in total net proceeds of \$100,288.44.²⁹ If the entire number of bales averaged the same weight, and since most Alabama black-belt planters attempted to turn out bales of equal weight, it may be assumed that King received approximately 8.86 cents per pound for his cotton. Such a price enabled him to raise cotton profitably.³⁰

In 1852 when Edwin W. King assumed management of his father's estate he became one of the wealthiest men in Alabama. Although Elisha F. King had had three children, only Edwin W. was alive in 1852. Edwin's important share of the estate, which he managed on behalf of his mother and himself until August 1860, consisted of the home place and 109 slaves.³¹ He also operated the Rich place and the Bibb County plantation. The lower place, containing 1,934 acres, was still under his direction because it had been left to his daughter, Sarah Elizabeth, under his trust. Moreover, until another daughter, Margaret Clarissa, married in 1856, he managed a place of 1,666 acres which she had inherited from Elisha F. King.³² Despite all the work entailed in running these plantations, Edwin W. King was almost as successful as his father. By 1855 he was the second largest slave owner in Perry County, being surpassed only by another local nabob named L. Q. C. DeYampart, who owned 245 Negroes. In three

years King had increased his number of slaves from 109 to 152.³³ Since he had inherited enough land, however, he added only 715 acres to his holdings.³⁴ Nevertheless, two new plantations were opened in 1859, the so-called Mosley and Sanders places. Thus, for more than a year, King operated six plantations.³⁵

In other respects, too, Edwin was active and successful. Until February 1857, he owned the King House, a popular hotel in Marion, the county seat of Perry County.³⁶ Shortly before his death, he subscribed \$5,000, or 50 shares, in a Marion bank.³⁷ His most elaborate financial venture, however, was a railroad which was constructed between Marion and Cahawba. As early as February 1848, there were 99 shareholders in the railroad company. Each share was valued at \$100, and altogether \$68,600 in stock had been subscribed. The two largest stockholders at the time were Elisha F. King and his brother, Edwin D., each with 50 shares.³⁸ It was, in fact, the Kings more than any others who made possible

²⁹ Perry County, Unpublished Census Returns, 1885 (Office of Probate Court). In 1855, 11 planters in Perry County owned more than 100 slaves; 5 between 90 and 100; 11 between 80 and 90; 11 between 70 and 80; 15 between 60 and 70; 21 between 50 and 60; 35 between 40 and 50; 45 between 30 and 40; and 65 between 20 and 30. Altogether, 913 slave owners held 14,339 Negroes. *Ibid.* In 1860, Perry County was one of the seven largest cotton-producing counties in Alabama. Davis, *Cotton Kingdom in Alabama*, 199.

³⁴ Edwin W. King Diary, Dec. 1, 1856, Nov. 16, 1859. In 1859, King bought 560 acres from W. L. Sanders. The entry in King's diary on Nov. 16, 1859 is of interest: "I gave him [W. L. Sanders] a draft due 1 Jan'y next for Ten Thousand dollars & one for 4320\$ due Jan 1861—I borrowed 5\$ [from] Catlin [a Marion merchant] & paid Jno McCall 3.88."

³⁵ Between 1852 and 1860, three daughters were born to the King family. Edwin W.'s will provided that his estate be held together for ten years after his death and then sold if these daughters and their mother so wished. Each of his legatees was to receive at least \$30,000. No provision was made in his will for his five eldest children because they had been provided for by the will of Elisha F. King. Perry County, Will Book, 3:105-107.

³⁶ The hotel was sold for \$6,669.79. Edwin W. King Diary, Feb. 19, 1857.

³⁷ *Ibid.*, Apr. 9, 1860.

³⁸ List of Stock Holders in Cahawba & Marion Rail Road Company, February 1848, in Hugh Davis Papers. They also contain an Official Report of John Lockhart, Treasurer of the Cahawba & Marion Rail Road, Feb. 11, 1848. Hugh Davis was attorney for the railroad.

²⁹ The figures included here have been compiled from separate reports of sales which King received from his factors. *Ibid.* King died on May 11, 1852. Family Bible of the Rhoda B. King Family.

³⁰ Davis, *Cotton Kingdom in Alabama*, 180.

³¹ Edwin W. King had married Rhoda B. Langdon of a prominent Marion family, on July 25, 1833, and had five children by 1852. His mother, the former Margaret Moore of Georgia, was still living and was always a great help to him in the management of his plantations. Perry County, Will Book, 278-282; Family Bible of the Rhoda B. King Family; Edwin W. King Diary, *passim*.

³² Margaret Clarissa was married on Jan. 23, 1856 to William P. Holman, a physician who had moved to Marion in 1854 from Mississippi. From the time he arrived at Marion, Holman was never out of debt. William P. Holman Diary, in possession of Miss Clara Barker, Marion. Elisha F. King's will provided that each of Edwin W.'s three young sons be paid \$30,000 when they reached the age of twenty-one. Perry County, Will Book, 278-282.

the construction of the railroad. Unfortunately for them, however, they were connected with the company at a time when it was burdened with construction costs, and everyone lost money. On November 20, 1852, Edwin W. King recorded in his diary that he had "subscribed four thousand dollars to the Railroad." For the next few years, he was most active in the affairs of the enterprise, and his diary contains numerous notations of his attendance at meetings in Marion of the railroad's board of directors. In September 1853, he, Edwin D. King, and Thomas T. Jones, all of Perry County, "Took the contract to grade the road." Each supplied 20 slaves and completed the work on October 22, 1856.³⁹ Shortly afterward, Edwin W. and four other directors endorsed the railroad's note of \$7,000 for the purchase of iron to lay the tracks near Marion. This work was soon finished, and the road was in operation by July 1857.⁴⁰

The railroad was immediately popular because it furnished a connection between the eastern part of Perry County and the Alabama River at Cahawba, whence cotton could be shipped by steamboat to Mobile. Moreover, the Marion and Cahawba road connected with another railroad which ran to Selma, Alabama. From there the important Alabama & Tennessee River Railroad joined the eastern region of the State's black belt with northeastern Alabama and the eastern part of the United States.⁴¹ As might be expected, planters of western Perry County and of adjacent Hale County soon began agitating for an extension of the railroad into their vicinities and, as early as July 1857, it was publicly stated that a railroad would soon be constructed westward from Marion.

³⁹ Edwin W. King Diary, Sept. 24, 1853, Oct. 22, 1856.

⁴⁰ The other directors signing the note were Thomas T. Jones, F. A. Bates, J. T. Barron, and Edwin D. King. *Ibid.*, Nov. 3, 1856. Reference is made to the opening of the railroad in the Judson Female Institute, *Catalogue*, 1857, p. 25. Edwin W. King received a shipment of groceries from Mobile by train from Selma to Hamburg for the first time in February 1857. Edwin W. King Diary, Feb. 17, 1857.

⁴¹ Davis, *Cotton Kingdom in Alabama*, 118, contains a map of the chief railroads in operation in Alabama in 1860. The best account on railroads in Alabama is William Elejius Martin, "Internal Improvements in Alabama," *Johns Hopkins University Studies in Historical and Political Science*, 20:127-205 (Baltimore, 1902).

Finally, during the fall of 1859, directors voted to extend the road to Greensboro in Hale County. In October 1859, Edwin W. King "subscribed 500\$ to extend R. R.," and the name of the road was soon changed to the Marion, Cahawba & Greensboro Railroad.⁴² Work was probably begun on the extension, but it had not been completed by the outbreak of the Civil War.

Although King was involved in numerous business enterprises, his chief interest always remained the management and operation of his plantations. He lived at his home place, having an overseer there and at each of his other plantations. He seems to have been unusually fortunate in his selection of overseers, for three of the five men working for him in 1852 were still employed in 1860.⁴³ One possible reason for this was the fact that he paid good salaries.⁴⁴ As was the usual case, the important task of his overseers was to direct the activities of the slaves and to make as much cotton as possible. In their treatment of the slaves they followed the customs of their day. The Negroes were comfortably fed, housed, and clothed.⁴⁵ As might be expected of a planter who owned 152 slaves, King often had problems of discipline to handle. On numerous occasions the slaves were whipped either by King himself or by an overseer. There were, however, no unusual incidents in this respect. A few Ne-

⁴² Edwin W. King Diary, Oct. 8, 1859, Jan. 23, 1860.

⁴³ Contracts with Overseers, in Edwin W. King Papers. On Nov. 18, King wrote in his diary: "I bargained with Mr. Counts to live at the Rich place next year . . . if either becomes dissatisfied we are to settle up & quit." On July 9, 1857, King recorded: "Counts has ruined his corn by ploughing it, a great Jack Ass." On Oct. 27, 1857, Counts was fired.

⁴⁴ The overseer of the Bibb County plantation received \$300 for work in 1852; the salary of the lower-place overseer was raised from \$235 in 1852 to \$500 in 1860; and the home-place overseer was paid \$500 in 1859. In addition, King's overseers received the customary meat, bread, sugar, meal, and coffee, as well as a house. Sometimes they were also furnished "with a woman to cook and a nurse." Edwin W. King Papers; Edwin W. King Diary, Feb. 9, 1852, Feb. 17, 1853, July 22, Nov. 18, 1856, Apr. 25, June 14, Nov. 10, 1859, Mar. 6, 1860.

⁴⁵ *Ibid.*, *passim*. For descriptions of the management of another South Alabama ante-bellum plantation, see the series by Weymouth T. Jordan on "Martin Marshall's Book," *Alabama Historical Quarterly*, 2:158-168, 318-330, 443-459 (1940), 3:117-129, 248-261 (1941).

groes ran away but in every case were recovered and punished.⁴⁶

The work performed by the King slaves was of the ordinary type done on large plantations of the Alabama black belt. January was one of the busiest months. New land was cleared every year. After trees were felled, shingles were cut, rails split, fences constructed and repaired, and firewood split. Work was done on the public roads; logs, trash, and brush were piled and burned; ditches were dug; old cotton and corn stalks were either plowed under or pulled up and burned; cotton was ginned and hauled away to be sold; grain crops were sowed; hogs were killed and meat salted away; corn was shelled; gullies and washes were filled with brush; spinning wheels and looms were run; and great quantities of cotton seed and manure were hauled for fertilizing purposes. Toward the end of January, the plows were started in corn lands, and in February and March the corn was planted. In March and April, the slaves planted their own and the plantation garden plots. Cotton lands were usually ready for planting by April, and during this month and May the cotton was planted. As cotton came up the important job was to chop it. In July and August, fodder was pulled, stacked, and stored away. Cotton picking began either in late August or early September and continued until the task was completed. Before the ginning was finished, it was usually time to begin with another year's work.⁴⁷ No records are available concerning King's interest in scientific farming. For some

methods, stock breeding, and even with irrigation.⁴⁸ Moreover, King subscribed to numerous farm periodicals, and he must have attended some of the agricultural fairs and exhibits which were often held in the black-belt region. Since he was in every other respect a typical large planter of his locality, he must have experimented with new farming practices.

Among the crops produced at each of the King plantations were cotton, corn, peas, potatoes, wheat, oats, rye, barley, turnips, and peanuts. Vegetables of all kinds were raised. Grapes, figs, apples, and peaches were grown. Goats, sheep, hogs, and chickens were raised. The most interesting practice followed by the younger King, however, was that of specializing in the production of one farm article at each of his plantations. The articles were then distributed wherever they were needed. For example, peas were raised at the Mosley place, hogs at the Bibb County plantation, sheep at the Sarah E. King or lower place, goats at the Sanders place, and cows at the home place. But by no means was King self-sufficient in his plantation operations.⁴⁹ Like other planters, he bought numerous plantation supplies from merchants and through his factor. The articles were of the same kind as those earlier purchased by his father. The following figures gleaned from hundreds of statements and receipted bills for plantation supplies among his correspondence and papers furnish some idea of his heavy expenses. The Sarah E. King plantation is not included in the tabulation.

	1853	1854	1855	1856	1857	1858	1859	Total
Dry Goods.....	\$532.09	\$711.08	\$1,255.61	\$778.28	\$1,211.58	\$994.56	\$1,616.49	\$7,099.69
Household Goods....	519.25	847.57	508.70	30.40	—	32.82	69.20	2,007.94
Foodstuffs.....	188.54	554.87	452.77	1,169.45	1,996.45	548.38	1,269.91	6,180.37
Drugs.....	62.15	62.68	57.49	69.41	74.06	70.15	18.40	414.34
Livestock.....	—	—	900.00	135.00	165.00	—	—	1,200.00
Lumber.....	12.50	27.65	99.45	165.67	131.54	68.78	—	505.59
Farm Tools.....	—	193.32	155.65	71.22	99.00	231.57	130.08	880.84
Iron.....	—	84.97	32.37	53.61	—	211.59	33.80	416.34
Rope, Twine, and								
Bagging.....	244.12	316.26	363.09	854.06	255.09	376.05	47.55	2,456.22
Miscellaneous.....	123.02	215.59	299.82	662.39	211.27	174.35	167.66	1,854.10
	1,681.67	3,013.99	4,124.95	3,989.49	4,143.99	2,708.25	3,353.09	23,015.43

reason he made no references to the subject in his diary. But, his neighbors quite frequently experimented with crop rotations, fertilization

From 1852 until his death, King's Mobile factor was the firm of McDowell, Withers and Company,

⁴⁶ Hugh Davis Papers; William A. Jones Papers.

⁴⁶ Edwin W. King Diary, Oct. 21, 1857, May 26, July 16, 1859.

⁴⁷ *Ibid.*, *passim*.

⁴⁹ One of King's chief concerns was maintenance of an adequate meat supply. The following are incomplete figures on hogs raised and killed at his plantations:

the same that had handled his father's affairs in the years just before 1852. Complete statements submitted by McDowell, Withers and Company of the younger King's annual business with them are available for the period from April 4, 1855 to February 23, 1860.⁵⁰

varying, depending on number of days in warehouses; and a commission of 2.5 percent paid to the factor on all sales. Fire insurance was always purchased but only on four occasions did King buy river insurance.⁵³ King's other relations with his factors were of the customary kind.

Date	Receipts	Interest due on Balance and Receipts	Expenditures	Interest owed on Expenditures	Balance
Apr. 4, 1855.....	—	—	—	—	\$24,584.63
1855-1856.....	\$24,979.37	\$2,438.25	\$24,093.34	\$623.10	27,285.81
1856-1857.....	17,146.19	2,075.44	13,024.32	403.58	33,079.54
1857-1858.....	13,345.84	3,183.43	14,155.92	600.34	34,852.64
1858-1859.....	18,370.05	3,060.09	26,424.64	528.29	30,396.43
1859-Feb. 23, 1860.....	16,817.64	2,343.83	34,000.87	685.19	14,871.84
	90,659.09	13,101.04	111,699.09	2,840.50	

Between 1852 and May 1860, McDowell, Withers and Company sold all of King's cotton except 87 bales.⁵¹ The cotton, sold in Mobile, always incurred the following charges: freight, from Cahawba to Mobile,⁵² usually \$1 to \$3 a bale; bill of lading, in nearly every case, 25 cents a bale; weighing, always 10 cents a bale; drayage, 10 cents; wharfage, 8 cents; storage,

During his years as director of the King plantations, Edwin W. annually produced and sold large numbers of bales of cotton. Records of most of the sales of the staple produced in 1852 and from 1855 through 1859 are available. Of these crops, McDowell, Withers and Company sold 2,025 bales for him, resulting in net proceeds of \$104,614.95. Complete reports of the sale of 1,725 bales are available. Their total weight was 934,476 pounds. Charges for the sales amounted to \$6,710.66. McDowell, Withers and Company's commissions were \$2,521.15. Gross proceeds totaled \$96,846.32, and net proceeds were \$90,135.66. The average price per pound amounted to 10.36 cents.⁵⁴ Such a price enabled King to produce cotton at a fair profit.

On August 10, 1860, Edwin W. King died, and in the years immediately afterward the financial condition of the King estate became steadily worse. Before his death, he had planted his 1860 cotton crops. They were sold by March 14, 1861, and at that time, when all current debts had been paid, the account with McDowell, Withers and Company showed a balance of \$6,434.47 in the deceased planter's favor.⁵⁵ In previous years he

1852, 110; 1853, 223, weighing 32,566 lb.; 1856, 110; 1859, 62, weighing 7,962 lb.; 1860, 34, weighing 3,951 lb. Edwin W. King Diary, December-January 1852-1860. On Oct. 27, 1853, he recorded in his diary: "I bought of a Tennessean [a meat trader] 486 lb. clear sides & paid him 46.60\$." On Dec. 16, 1856, he killed 32 hogs, weighing 6,573 lb., which he had obtained at 7¢ a lb. from a neighbor. On Nov. 19, 1856, he bought 528 lb. of bacon at 12.5¢ from the Marion firm of Brazelton & Company. He purchased 616 lb. for \$86.25 on Dec. 13, 1856, and on Dec. 24, "22 head of hogs at 60\$." On Dec. 31, 1857, he killed 29 hogs, weighing 2,250 lb., which he had purchased. On Apr. 30, 1860, he bought 12,549 lb. of bacon at 10.5¢.

⁵⁰ Edwin W. King Papers.

⁵¹ King made two sales at Selma. For one, on Jan. 14, 1857, after paying charges, he received \$1,731.95 for 26 bales weighing 14,352 lb.; and on Feb. 9, 1858, he received \$568.72 for 10 bales weighing 5,428 lb. These sales were made by Sink & Milton and J. E. Prestridge, respectively. Borden & Buck of Mobile concluded two sales for him. On Jan. 24, 1860, the firm sold 20 bales for \$1,134.43 and 31 bales for \$1,584.05. *Ibid.*

⁵² Until the Cahawba & Marion Railroad was constructed, King's cotton was transported by his own wagons from his home place to Cahawba, thence shipped by river boat to Mobile. After 1857, his cotton was usually shipped by rail either to Cahawba or Selma. *Ibid.*; Edwin W. King Diary, Jan. 13, Sept. 7, 1857.

⁵³ Edwin W. King Papers. On one occasion, Elisha F. King lost part of his cotton crop because of fire. This incident was probably the reason why Edwin W. always purchased fire insurance on his own shipments of cotton. His description of the incident was: "the Ware House at Cahaba burnt up last night. Father lost 85 bales." These bales were waiting shipment down the Alabama River. Edwin W. King Diary, Oct. 23, 1851.

⁵⁴ Edwin W. King Papers.

⁵⁵ McDowell, Withers and Company to Mrs. W. P. Holman, July 13, 1861, in Mrs. William P. Holman Papers, in possession of Miss Clara Barker, Marion.

had maintained a more comfortable balance with the firm, although the balance had decreased by more than 50 percent between March 1859 and February 1860. The decrease had not been caused by negligence. Neither was it a result of the unprofitability of plantation slavery. Rather, the decrease came for quite different reasons. King had made heavy investments aside from those required by his plantation operations. A particular drain on his assets had been excessively heavy personal loans to his spend thrift son-in-law, William P. Holman, and these loans had been cancelled. Holman had been borrowing heavily for at least five years and had even obtained large sums from King while courting his daughter.⁵⁶ Holman was definitely an example of a planter who was a failure. Unfortunately for Edwin W. King's estate, it was managed by Holman for about a year after King's death. Within the year, after selling the 1860-1861 cotton crops, the estate, under Holman's direction, showed a deficit for the first time in its history. The deficit with McDowell, Withers and Company amounted to \$7,410.08. Moreover, on his own account, Holman owed the company \$6,824.88. A probable reason, in addition to Holman's absolute lack of ability, was his purchase of numerous slaves at high prices.⁵⁷

Holman died on May 28, 1861, and operation of the family plantations was taken over by Mrs. Rhoda B. King, the widow of Edwin W.⁵⁸ Her business judgment was excellent, and she probably would have been able to hold together most of her property if she had not been faced with the many problems created by the Civil War. In the course of the conflict, agents of the Confederate armies and of the Government impressed at least 25 of her slaves, hundreds of pounds of meal

and bacon, numerous horses, mules, and wagons, all sorts of plantation equipment, and many other movable articles. Included in her papers are items showing that the impressments were made under authority of an act of October 31, 1862 of the General Assembly of Alabama, as well as under acts of April 6, 1863 and February 17, 1864 of the Confederate Congress, and by orders of commanding officers of both Southern and Northern troops which passed her plantations. She protested both to Federal and Confederate authorities,⁵⁹ but in no case was she reimbursed for her losses. Taxes of course became exorbitant, and so did prices on all supplies needed in the operation of her plantations. Moreover, since cotton became of less importance to the producer than at any time in the nineteenth century, she had no market for the little staple she managed to make under the trying conditions of the war period. There is little wonder that her problems became too numerous to handle effectively.

After the war, which had violently disrupted and changed the plantation system throughout the South, Mrs. King was forced to curtail drastically her farming activities. The method of operation to which she and most other planters were compelled to turn in the years following the Civil War is well described in the following agreement, made on November 17, 1868 concerning a portion of the Rich place.

The State of Alabama

Perry County For the purpose of cultivating the plantation of Mrs. R. B. King, Known as the "Rich Place," during the year 1869, Mrs. R. B. King and Robert Liddell, make the following agreement, to wit, Mrs. King furnishes for culture one hun-

⁵⁶ Edwin W. King Papers; Edwin W. King Diary, 1856-60, *passim*; Perry County, Will Book, 3:105-107.

⁵⁷ McDowell, Withers and Company to Mrs. W. P. Holman, July 13, 1861, in Mrs. William P. Holman Papers. Bills of Sale and Statements of Accounts, in *ibid.* Also, on Jan. 1, 1861, King's estate had to meet payment of a draft of \$4,320, which was part payment promised by Edwin W. for the Sanders place. Edwin W. King Diary, Nov. 16, 1859.

⁵⁸ Rhoda B. King Papers, in possession of Miss Clara Barker, Marion. Rhoda B. King was aided in managing her plantations by her mother-in-law, Mrs. Margaret King, until the latter's death on Sept. 23, 1863. On Dec. 28, 1864, Rhoda B. King was appointed administratrix of the estate of Mrs. Margaret King. *Ibid.*; Family Bible of the Rhoda B. King Family.

⁵⁹ The following affidavit was made by Mrs. M. C. Holman, the former Margaret C. King, daughter of Edwin W. It represents a type of protest made by several members of the King family when their property was seized during the Civil War: "Personally appeared before me, a Justice of Peace in and for said State and County [Alabama and Perry], John Liddell who being duly sworn deposeth and sayeth: On or about May 13 1865 General Grierson's Division of Cavalry, camped upon Mrs. M. C. Holman's plantation and by force and threats obtained possession of and carried off for the use of the Command 800 bushels corn 3000 lbs Fodder 1100 lbs. Bacon and 8 mules average value \$125 each. Members of the command also killed of Mrs. Holmans Stock 75 to 80 head of Hogs 5 head of Calves 7 Yearlings 2 Sheep and 5 Goats. Of the above Mrs. Holman obtained a receipt only for 545 bushels Corn." Rhoda B. King Papers.

dred and twenty acres of land more or less; four mules, to wit, Tobe, Molley, Morgan and Big Tom, for two of which she is to receive of Mr. Liddell thirty dollars each, for their years service; one waggon and plows and gear, the same to be returned in similar order at the end of the year; and half the feed for the mules; She will also advance one half the rations for the hands to be employed on the place to be reimbursed by the laborers out of their one third part of the nett proceeds of the crops of every kind, that may be produced during the year, and she will pay half the black smith bill for the use of the said place during the year.

The said Liddell will give a special and generous superintendence to the plantation, and direct and control the laborers; He will furnish or pay for one half of the rations of the laborers, to be reimbursed from the nett proceeds of the crop that may be due them; He will furnish one half the feed for the mules, and pay one half the blacksmith bill; and at the close of the year will return all the farming implements used on the place, in the same order as received, ordinary wear and tear excepted, to said King.

The laborers are to have one third part of all the crops that may be raised during the year, after paying all necessary and usual expenses in its preparation & transportation to market, and paying all advances for rations & other supplies.

The said King and Liddell will divide equally all the cotton, corn, fodder, hay & potatoes that may be produced in the year 1869, after paying the laborers and all necessary expenses in and about the preparation and transportation to Market.

In witness whereof we have hereunto this agreement in duplicate, this 17th day of Novr. A. D. 1868

James G. L. Huey

C. M. Huey

R F Liddell

X X [his mark]

R. B. King⁶⁰

Agreements of this sort meant an almost complete breakdown of the plantation system as conducted by the King family preceding the Civil War.

Although this study was not undertaken to prove or disprove the much debated conclusions of various agricultural writers, historians, and others on the subject of the profitability of the ante-bellum plantation system,⁶¹ it is evident that Elisha

⁶⁰ *Ibid.*

⁶¹ See, for example, Ulrich B. Phillips, *American Negro Slavery*, 391-392 (New York, 1918); Ralph Betts Flanders, *Plantation Slavery in Georgia*, 213-215, 220-227 (Chapel Hill, 1933); Charles Sackett Sydnor, *Slav-*

F. King began his activities in Perry County a poor man and died wealthy. His son inherited several thriving agricultural establishments, free of debt, and as a result of careful attention to his business he remained wealthy. The Kings were good managers; they raised and sold large crops of cotton and acquired extensive slave holdings. In addition to actual monetary profits earned, they lived comfortably, educated their children in approved style, contributed freely to various charities, and became leaders in their social circles. All of this resulted particularly from their farming activities, and as a matter of fact it was only when they participated in business projects other than plantation management that they suffered financial setbacks. The general assertion made by a group of recent writers that the system was quite unprofitable seems unwarranted. Profit in ante-bellum plantation management was a matter of degree, and a primary problem is to decide what is meant by profit. Often, because of lack of complete records, it is impossible to determine precise expenditures and receipts of planters. Moreover, particular cases are dependent upon, among other factors, climate, soil, health of labor, and particularly upon the personal characteristics of the plantation owner himself. Transportation facilities greatly influenced the net proceeds of a planter. It happened that the members of the King family were for the most part successful. Where they succeeded others could easily have failed.

ery in Mississippi, 181-202 (New York, 1933); Lewis Cecil Gray, *History of Agriculture in the Southern United States to 1860*, 1:476 (Washington, 1933); Davis, *Cotton Kingdom in Alabama*, 169-189; J. Winston Coleman, *Slavery Times in Kentucky*, 65-66, 142-143 (Chapel Hill, 1940).

After the writer completed the present study, an article by Thomas P. Govan with somewhat the same conclusion appeared under the title, "Was Plantation Slavery Profitable?" in the *Journal of Southern History*, 8:513-535 (November 1942). Govan's article is based on new materials and Herbert Weaver, *The Agricultural Population of Mississippi, 1850-1860*, p. 121-125 (Ph. D. dissertation, Vanderbilt University, 1941).

THE FENCING OF WESTERN RAILWAYS

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As the railroads moved across the prairies, the settlers, as well as some of the cattlemen, were quickly aroused by the loss of their livestock on the unfenced right of ways.¹ The companies usually left the fences to the last, not only because of the cost of materials but also because the laws requiring them were in some cases enacted subsequent to construction. The railroad right of ways, especially during certain times of the year, attracted animals to the banks and cuts where they could find greener grass, shelter from winds, and higher dryer ground.²

Western periodicals carried numerous items on losses of and damages to livestock. In 1881 one of the leading railroad companies in Colorado reported that "we are in perpetual danger from cattle straying on our track."³ There were similar reports from other states.⁴ A western journalist estimated that the Denver & Rio Grande Railroad alone killed at least \$25,000 worth of livestock during the winter of 1884. Along certain parts of the Union Pacific line the losses were even higher.⁵ The immense number of deaths and injuries in the western states that year caused the United Rocky Mountain Stock-Growers Association to consider the problem at their conven-

tion at Salida, Colorado.⁶ The following description of losses near Dillon, Montana, during the winter of 1886-87 is typical:

The trains have been doing heavy work among the cattle during the past few days, and it is a very common thing to see an engine's pilot covered with the hair and blood of some unlucky animal. The unfortunate beasts stand along the track where the ground is bare and where some friendly point shelters them from the wind, and the trains catch them before they can get off. The other day one engine ran into a bunch . . . throwing twelve head from the track and killing seven, and again another lot was encountered . . . and two cows were killed, making a total of nine for the trip. Of course it is hard for the trainmen to avoid killing stock, especially when the track is icy and slippery . . . but it is still harder on the owners to lose their animals, and they are certainly entitled to pay for them. There is but one way to avoid controversy in the matter—the fencing of the track—and it would seem to us that it would pay the company to do it.⁷

A few of the western roads included figures on livestock losses in their annual reports, and these indicate the magnitude of the problem. In 1876 the Missouri, Kansas & Texas Company reported that the 1,948 animals which had been killed in the three states where it operated cost about \$25,000.⁸ The report of the Texas & Pacific for 1877-78⁹ indicates that it cost \$65.84 for every mile operated to cover the loss of livestock.⁹

¹ The material used in this article was obtained in connection with a larger investigation which was made possible by a Social Science Research Council grant-in-aid.

² *Cheyenne Democratic Leader*, Apr. 3, 1884.

³ *Railroad Gazette*, 13:9 (Jan. 7, 1881). Cattle not only strayed on the tracks, but trains often stampeded them and they would crash into the moving cars. *Cheyenne Democratic Leader*, June 30, 1887; *Galveston News*, Apr. 19, 1882.

⁴ *Galveston News*, Apr. 19, 1882; *Western Rural*, 21:274 (Aug. 25, 1883); *Bad Lands Cow Boy*, Nov. 25, 1886; *Breeder's Gazette*, 10:603 (Oct. 21, 1886); *Daily Optic* (New Mex.), Dec. 27, 1880; *Texas Live Stock Journal*, 8(49):5 (July 7, 1888).

⁵ *Cheyenne Democratic Leader*, Apr. 3, 1884. At a point in Missouri one passenger train killed 25 head of cattle. *National Live-Stock Journal*, 1:47 (Dec. 30, 1884).

⁶ *Cheyenne Democratic Leader*, Feb. 21, 1884. The Union Pacific decided to begin fencing their western divisions after their experience in 1884. *Cheyenne Democratic Leader*, Apr. 3, 1884.

⁷ *Dillon Examiner*, quoted in *National Live-Stock Journal*, 18:37 (January 1887).

⁸ M., K. & T. Co., *Report*, 1877, p. 94.

⁹ T. & P. Co., *Report*, 1877-78, p. 33. The following figures show why they began to fence: 1876—\$14,369.35; 1877—\$22,683.86; 1878—\$29,233.99; 1879—\$21,134.63; 1887—\$62,109.91; 1888—\$80,388.80; 1889—\$128,907.11; 1890—\$123,433.46; 1891—\$119,543.95; 1892—\$84,590.78. See *Report*, 1876-77, p. 25, 32-33; 1887, p. 25; 1889, p. 13-14, 29; 1890, p. 33; 1891, p. 36-37; 1892, p. 43.

Many human lives were sacrificed in addition to the large number of animals injured or killed. Train accidents caused by collisions with livestock were numerous, derailments were not uncommon, and the delays of trains were frequently referred to in the annual reports.¹⁰

The majority of the western enactments on fences were somewhat similar, being copied from those of the older states.¹¹ The common law practice had been followed for years in most of the northern states. It required that the owner must keep cattle on his own premises by fencing, otherwise he was "answerable for any trespass which they may commit upon the lands of another."¹² In a few of the western cattle states herd laws were more frequent than the common law practice, and under them cattle were allowed to run freely on the open range.¹³ With the coming of the railroads, however, the courts held that a new element was introduced. The passengers on trains were endangered, and it was necessary that all animals be kept off the tracks. This problem could not be solved nearly so well by having the thousands of settlers along the right of way fence in their stock as requiring the railway companies to enclose the track or otherwise be liable for injuries to all livestock.¹⁴ When animals were killed, the payment was generally a "fair market price," and only in Missouri was a "double liability" imposed upon the carriers.¹⁵

Yet many of the western roads delayed en-

closing their right of ways. Some claimed that the states did not have the power to regulate this matter, while others felt that the owners of animals should be held responsible for them. One of the leading railway publications stated the opposition sentiment as follows:

The notion that a railway upon which the population of large districts of country depends for the transportation of themselves and their property—and which must run its trains rapidly in order to satisfy the public necessities—should be subordinated to the rights of a stray steer, is absurd. Indeed it is the public which are compelled to pay tribute to his erratic bovine majesty. They must pay millions of dollars in the aggregate in order that Buck and Bright may wander at their own sweet will.¹⁶

In most cases this opposition and delay can be further attributed to the high cost of materials on the western prairies. The production of fencing equipment that was worth installing was slow. At first a few roads, especially those in the Middle West, used such materials as hedges, boards, and smooth wire, but all of these had weaknesses. The Illinois Central contracted for about 50 miles of hedge fence but abandoned it after a few years.¹⁷ As a fencing material hedge was difficult to start and in addition took from five to six years to reach maturity. The cost of trimming and replanting was high, and both engineers and the public complained that hedges obstructed the view at crossings.¹⁸

Boards were used much more extensively than hedges as a fencing material.¹⁹ For the Middle Western railroads lumber was available from the pineries in the upper Mississippi states and could be floated down the river at a reasonable cost,²⁰ but as the roads moved into the Great Plains, the

¹⁰ Atchison, Topeka & Santa Fe Ry. Co., *Report*, 1880, p. 10, 12; *Railway Gazette*, 9: 373, 463 (Aug. 17, Oct. 19, 1877); 13:9 (Jan. 7, 1881).

¹¹ New York is believed the first to enact a railway fencing law. W. W. Thornton, *The Law of Railroad Fences*, 22 (Indianapolis, 1892).

¹² Ransom H. Tyler, *A Treatise on the Law of Boundaries and Fences*, 341 (Albany, 1876).

¹³ Kansas State Board of Agriculture, *Biennial Report*, 1877-78, p. 105, 114, 130, 144. *Breeder's Gazette*, 6:826 (Dec. 4, 1884).

¹⁴ Thornton, *Law of Railroad Fences*, 22-26. The required legal fence was usually 4½ to 5 feet high, in good repair, consisting of rails, lumber, stone, or wire.

¹⁵ Washburn & Moen Mfg. Co., *Fence Laws*, no. 21 (Worcester, Mass., 1880). In Indiana the legislators attempted to enact a law that unless fences were built "no conductor or agent is allowed to collect fare for travel." *Railway Age*, 6:31 (Jan. 20, 1881). In Illinois a bill was introduced to force the railways to keep their tracks fenced; if not any village or individual could make the necessary repairs and charge double the cost. *Creston Times* (Ill.), Feb. 7, 1874.

¹⁶ *Railway Age*, 9:116 (Feb. 21, 1884). On some of the larger ranges in the West, cattlemen likewise opposed the fencing of railroads as it prevented the roaming of cattle from one range to another. *Cheyenne Democratic Leader*, Apr. 3, 1884. The Texas & Pacific found many ranchers opposed to their fences and "so handy with the nippers" that the wire was cut as fast as the road could be fenced. *Breeder's Gazette*, 10:603 (Oct. 21, 1886).

¹⁷ *American Agriculturist*, 16:255 (November 1857); *Western Rural*, 14:177 (June 3, 1876).

¹⁸ *Railway Age*, 28:704 (Sept. 22, 1899).

¹⁹ *Colman's Rural World*, 26:23 (July 29, 1871).

²⁰ *Western Rural*, 15:118 (Apr. 14, 1877); *Western Journal of Agriculture* (St. Louis), 3:307 (February 1850).

cost of fencing naturally rose. In 1855 a Pacific railroad company running out of St. Louis contracted for 40 miles of plank fence at a prohibitory price of \$750 a mile.²¹ Boards were not only costly but also easily damaged by fire, vulnerable to heavy prairie winds, and responsible for banking snow upon the tracks. One railway official estimated that lumber cost fully 25 percent more than wire.²²

The introduction of barbed wire in the middle seventies offered the railways an opportunity to enclose their right of ways at a much reduced cost.²³ This new invention overcame many of the weaknesses of other types of fences but failed to prevent smaller animals, such as suckling pigs, from getting through the lower wires. Since the right of ways were fenced rather effectively against cattle and horses, the companies were generally quite reluctant to pay claims on other kinds of livestock, such as hogs; consequently many controversies ensued when the smaller animals were killed.²⁴ Some state laws required in definite terms that railroads must maintain a "good and efficient" fence which would exclude all domestic animals, while others were less explicit.²⁵ For example, a Texas statute in 1880 stated that the railroads were liable for livestock killed and injured when the right of way was fenced, provided that it could be shown that the company failed to exercise "ordinary care."

For some years barbed wire was considered a cruel fence, and without doubt it did cause many injuries.²⁶ These accidents resulted in bad tempers among those who lived near the tracks. Nothing stirred settlers so much, even as far back as colonial times, as injuries to livestock. Neighbors were often turned from friend to foe by

bad fences. A good account of this ill feeling was expressed in one of the agricultural journals:

... bad fences have often been the means of the most unhappy disputes and downright quarrels amongst neighbours, from which have flowed assaults, batteries, law-suits, and ill-will for life, and after—for the quarrel has often been entailed with the property on the son—amongst those who would otherwise have lived upon the most friendly terms all their days.²⁷

This same attitude was carried over to the railroad company. Lengthy law suits were common with the railroads,²⁸ and claim agents were frequently busy at certain points settling accounts with the farmers.²⁹ A farmer in Illinois, speaking in the legislature in behalf of a bill to secure damages from railway companies for killing livestock, said:

At present if a farmer has the misfortune to have an animal killed by a passing train, though it may be through no fault of his, it is almost impossible for him to secure damages in any reasonable length of time, and even if he does eventually obtain pay, he is obliged to take whatever the company chooses to offer, or else resort to a litigation that will cost him more than the value of the property destroyed. . . . By all means let

²⁶ *Iron Age*, June 26, 1884. Legislatures were often petitioned to pass laws prohibiting its use, and some states did require a "tabular" block or tin plate of steel to be placed on the wire so as to be visible from a distance. *Chicago Industrial World*, Apr. 13, Aug. 3, 1882, July 23, 1885. The lumber interests of the northwest capitalized on the factor of cruelty. The lumber journals attacked this type of fencing when they found the railroads and farmers turning to barbed wire. *North-western Lumberman* 17:2 (Feb. 12, 1881), 3 (Mar. 26, 1881); *Chicago Industrial World*, Apr. 7, Aug. 4, 1881.

In New England several of the state assemblies were petitioned to pass laws prohibiting the railroads from fencing their right of ways with barbed wire. The public hearings are found in the *Montpelier Watchman*, Nov. 25, 1880, and the *Hartford Daily Courant*, Feb. 27, 1880.

²⁷ *Farmers' Cabinet*, 6:59 (September 1841). It was not uncommon for neighbors to "dog" each other's stock and at times guns were used against another's animals. *American Cotton Planter*, 1:118 (April 1853); *Cultivator and Country Gentleman*, 42:423 (July 5, 1877); *American Agriculturist*, 4:44-45 (February 1845).

²⁸ A "Loss and Damage to Livestock" entry was carried in most of the western railroad annual reports. See Union Pacific Ry. Co., *Report*, 1887, p. 88, 110.

²⁹ *Breeder's Gazette*, 10:603 (Oct. 21, 1886).

²¹ *American Agriculturist*, 14:197 (June 7, 1855). In Texas rough cypress fencing boards sold for as high as \$70 per thousand. *Plough, the Loom, and the Anvil*, 7:417 (January 1855).

²² Marshall M. Kirkman, *Maintenance of Railways*, 69 (Chicago, 1886).

²³ Earl W. Hayter, "Barbed Wire Fencing—A Prairie Invention," *Agricultural History*, 13:194-195 (October 1939).

²⁴ *Western Rural*, 21:274 (Aug. 25, 1883).

²⁵ Kansas required that railways use three additional wires where hogs ran free. *Railway Age*, 8:227 (Apr. 26, 1883). In order to cope with this problem, the barbed-wire manufacturers produced a "thick set" or hog wire which was used by some companies for bottom wires. *Glidden Barb-Fence Journal*, 6:5 (1885).

us have a law that shall simplify and quicken the mode of obtaining redress from these soulless corporations.³⁰

The railroads, like the farmers, turned to barbed wire reluctantly at first. Only because of the extreme cost of damages and the scarcity of other types of fencing materials did they finally resort to it. From all available evidence it appears that the first barbed-wire fence was constructed on a mile of the Chicago and Northwestern line in 1877 by the Barb Fence Company, then owned by the partnership of Glidden & Ellwood of DeKalb, Illinois. So great was the caution of the railroads that the manufacturers even had to agree that they would do the removing as well as constructing in case the barbed wire proved unsatisfactory.³¹ During its beginning period this was true for farmers also. Often payments were not collected until its worth had been proved. From that time on this type of fencing took the lead and held it by a large percentage until 1888 when woven-wire fence was introduced and railroads turned to it. The following expenditure data from the Chicago and Northwestern Railway reports for 1877 to 1888 show the extent of the various fencing materials used:

Year	Wood	Barbed Wire
1877	\$7,062.25	\$17,012.24
1878	3,342.70	23,310.04
1879	3,235.28	18,997.00
1880	3,958.84	15,541.04
1881	3,401.90	26,150.21
1882	3,967.11	28,661.83
1883	9,603.40	20,303.29
1884	7,404.30	17,422.64
1885	9,020.96	13,100.75
1886	6,906.35	12,902.19
1887	9,717.05	13,470.13
1888	4,843.15	6,381.69

³⁰ *Creston Times* (Ill.), Jan. 31, 1874.

³¹ *Chicago Times*, Jan. 19, 1881; *Prairie Farmer*, 56:2 (Jan. 5, 1884). Barbed-wire fencing was first noted in this company's *Report*, 1877-78, p. 35. Litigation among the various patentees also slowed adoption by the railroads. The fear of buying wire that infringed on other patents forced the Western Railway Association in Chicago to make a rather exhaustive study of the different patents. In 1881 the Washburn & Moen Mfg. Co. of Worcester, Mass., and the I. L. Ellwood & Co. of DeKalb, Ill., agreed to furnish the association their wire and in return to pay all damages of infringement. Agreement of Washburn & Moen Mfg. Co. & Western Railways Association, Chicago, Mar. 22, 1881, in the American Steel & Wire Museum, Worcester, Mass.

In 1888 the company spent \$2,912.20 for woven wire.

Other western roads had about the same experience with barbed wire.³² Construction was usually begun on the portions of the line where livestock was most numerous, and as the building continued westward, expenditures increased.³³ The advantages of this type of fence explain the demand.³⁴ Railroad companies had to guard their property constantly from theft, and board fences made excellent fuel on the treeless prairies. Damage to fences from fires was not nearly so great where wire was used, and from the standpoint of cost, there was no comparison. In the early eighties, a good legal barbed-wire fence could be constructed for about \$150 a mile since the companies secured the wire cheaper in carload lots and freight charges were not included.³⁵

With the expansion of railroad mileage, new methods of fence construction were developed. Barbed-fence companies began to contract for hundreds of miles in a single season.³⁶ In the eighties the Thorn Wire Hedge Company of Chicago organized a construction concern known as the Western Fence Company which operated in the western states as well as Canada for several years.³⁷ From May to October, it built hundreds of miles of fences as well as gates and cattle guards. It had boarding cars for three to four hundred men who went in gangs of about forty with a foreman and furnished all equipment, including specifications.³⁸ With this method of construction it was possible to reduce the cost considerably. In 1880 this company built 250 miles for the Wabash, 200 for the Grand Trunk in Canada, and 200 for the

³² I. L. Ellwood & Co. reported in 1879 that it was furnishing 59 railroads with the Glidden barb, and in 1885 the number had increased to "over one hundred." *Glidden Barb Fence Journal*, 2:15 (1881), 6:13 (1885); *Railway Review*, 20:1 (Oct. 9, 1880).

³³ Atchison, Topeka & Santa Fe Ry. Co., *Report*, 1878, p. 21; Chicago, Burlington & Quincy Ry. Co., *Report*, 1881, p. 13-14.

³⁴ Barbed-wire fences were used in a few cases for telephone communications. *American Manufacturer*, 41:6 (Dec. 16, 1887); *Iowa State Register*, Jan. 16, 1884.

³⁵ *Iron Age*, Jan. 27, 1881; I. L. Ellwood & Co., "Price List," Jan. 25, 1881.

³⁶ One Cleveland concern called itself the Railway Barb Fencing Company. *Chicago Commercial Advertiser*, Jan. 1, 1880.

³⁷ *Chicago Journal of Commerce*, June 2, 1880.

³⁸ *Railway Review*, 20:12 (Oct. 2, 1880).

Indianapolis, Decatur, and Springfield railroads. For several years it continued this method of construction from Canada to Mexico.³⁹

The I. L. Ellwood and Company, as well as other concerns, followed the practice of the Western Fence Company, not only in constructing new fences but in repairing old ones. The annual reports of railway companies indicate that maintenance of fences was a costly item, and contracting with experienced builders was, no doubt, an attempt to cut this expenditure.⁴⁰ By 1895 the Ellwood concern was building hundreds of miles of barbed-wire and woven-wire fences and had contracts with the St. Louis Southwestern, the Gulf, Colorado and Santa Fe, the Texas Midland, and other railroad companies. The following excerpts from its contracts with these railroads indicate how the work was done:

³⁹ Chicago *Industrial World*, Oct. 28, 1880, June 30, 1881; *Age of Steel*, July 9, 1881; *Railway Age*, 15:13 (Dec. 20, 1890).

⁴⁰ In 1891 the Texas & Pacific Ry. Co. had a total of 340 miles of fence with a maintenance cost of \$35,262.81. *Report*, 1891, p. 17, 39.

About two thirds of the fence shall consist of Ellwood's Field Fence (woven). . . . The other one third of the fence . . . shall be of six barbed wires . . . the lower three to be what is known as hog wire, the upper three cattle wire.⁴¹ All posts shall be of Bois d'arc 7' long. . . . None of these . . . shall be sharpened, but will be set true and plumb in suitable post holes. . . . Farm gates will be 12 feet long . . . ; they as well as cattle guards will be furnished by the railroad company. . . . Wing fences to be put up against the cattle guards. Said labor and material to be furnished by I. L. Ellwood & Company. Railroads to clear the right of way of all fences, logs, trees, brush and other obstructions, and shall cause the line . . . to be staked . . . so as not to delay the fence builders, and to furnish free transportation over the line . . . to furnish free of charge suitable water tank cars . . . suitable side track for fencing trains . . . flag-man, flags and signals, . . . hand or push cars.

By the turn of the century, most of the western railroads had their right of ways fenced. Woven wire came to be the common fencing material most suitable for all the needs and other types were used in a secondary manner.

⁴¹ The woven-wire fence cost about \$200 per mile and the barbed about \$100 by 1895.

THE NATIONAL AGRICULTURAL JEFFERSON BICENTENARY COMMITTEE ITS ACTIVITIES AND RECOMMENDATIONS¹

LEGISLATIVE HISTORY

The resolution creating the National Agricultural Jefferson Bicentenary Committee was introduced in the Senate of the United States on April 12, 1943, by Senator Harry Flood Byrd of Virginia after consultation with Secretary Claude R. Wickard, M. L. Wilson, and other interested persons. Known as Senate Joint Resolution 47, it provided for the appointment of a National Agricultural Jefferson Bicentenary Committee to carry out under the general direction of the United States Commission for the Celebration of the Two Hundredth Anniversary of the Birth of Thomas Jefferson appropriate exercises and activities in recognition of the services and contributions of Thomas Jefferson to the farmers and the agriculture of the Nation.² On the same day, Representative Howard W. Smith of Virginia introduced an identical resolution in the House of Representatives. Known

as House Joint Resolution 114, it was referred to the Committee on the Library.³

The text of Senate Joint Resolution 47 and House Joint Resolution 114 is as follows:

Providing for the appointment of a National Agricultural Jefferson Bicentenary Committee to carry out under the general direction of the United States Commission for the Celebration of the Two Hundredth Anniversary of the Birth of Thomas Jefferson appropriate exercises and activities in recognition of the services and contributions of Thomas Jefferson to the farmers and the agriculture of the Nation.

Whereas the year of our Lord nineteen hundred and forty-three marks the two hundredth anniversary of the birth of Thomas Jefferson; and

Whereas the Congress of the United States has set aside the year 1943 as a year of celebration of this important event by appropriate ceremonies and activities throughout the Nation; and

Whereas Congress has created the United States Commission for the Celebration of the Two Hundredth Anniversary of the Birth of Thomas Jefferson; and

Whereas Thomas Jefferson is revered as a patriotic

¹ This report was prepared by Everett E. Edwards as secretary of the Committee.

² *Congressional Record*, 78 Congress, 1 Session, 89:3264.

³ *Ibid.*, 3313.

statesman and philosopher, as author of the Declaration of Independence, for his services as a citizen of Virginia, as President of the United States, as a man of abiding passion for human liberty and the sacred rights of the common people, and as one who, throughout his entire career, remained preeminently and above all a farmer, devoted to the cultivation of his farms and the improvement of agriculture; and

Whereas he was one of the leading farmers of his time in the United States and was profoundly interested in the sciences related to agriculture and more than any other one person can be regarded as the father and patron of the scientific agricultural developments since his time; and

Whereas he practiced rotations of crops and diversified farming; introduced and improved the breeding of domestic animals and plants; contributed to the improvement of farm implements, such as the plow; encouraged the growing and use of fruits, vegetables, and other domestic products; encouraged research as to methods of control of insect pests; practiced and advocated control of soil erosion, and stood for the conservation of agricultural resources; and

Whereas as the founder of the University of Virginia, he made provision for a professorship of agriculture and helped start a train of events which led to the creation of agricultural colleges, experiment stations, and the research, educational, and other services of the Federal Department of Agriculture; and

Whereas, in his first administration as President of the United States, the national domain was enlarged by the acquisition of the Louisiana Territory, a great farming area which gave us a leading position in the agriculture of the world and enables us to serve as a source of food for our fighting allies; and

Whereas throughout his whole social philosophy runs a theme which recognizes the dignity of the agricultural way of life and a deep appreciation of the satisfactions which accrue, through science, education, and faith, to the farm family and the rural community; and

Whereas he recognized the importance of the perpetuation of a sound agriculture as a paramount factor in the development of the economy and the permanence of our national institutions; and

Whereas, by reason of his contributions to agricultural philosophy, science, education, farm management, and practice, he is recognized as one of the great leaders among the farmers of this country, who are now engaged in a vital part of the war effort; and

Whereas, as a figure, against the background of the soil of the land he loved, he stands as a symbol of its values, democracy and freedom, for the preservation of which the American farmers and all connected with the industry of agriculture are now contributing their maximum effort; and

Whereas it is appropriate that his services to agriculture should be duly recognized and brought to public attention in this anniversary year; and

Whereas many public and private institutions in the

service of agriculture, the United States Department of Agriculture, and the State colleges of agriculture and organizations composed of farmers and their families are anxious to participate in activities in recognition of our great debt to Jefferson as a farmer, agricultural philosopher, statesman, and educator and leader in scientific agriculture: Therefore be it

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That there be created, under the auspices of and in cooperation with the United States Commission for the Celebration of the Two Hundredth Anniversary of the Birth of Thomas Jefferson, the National Agricultural Jefferson Bicentenary Committee. The Secretary of Agriculture is hereby appointed Chairman of and is hereby authorized to organize such Committee. The President pro tempore of the Senate shall appoint as members of the Committee five Members of the Senate. The Speaker of the House of Representatives shall appoint as members of the Committee five Members of the House of Representatives. The Secretary of Agriculture is hereby authorized to appoint in his discretion an appropriate number of members of the Committee representing the following agricultural organizations:

United States Department of Agriculture.

The land-grant colleges (including the colleges of agriculture, the agricultural experiment stations, and the agricultural extension services).

National farm organizations.

The agricultural press.

Scientific and learned societies dealing with agriculture.

The Office of Education.

The Secretary of Agriculture is empowered to appoint a secretary for the Committee. All members of the Committee are to serve without compensation. The duties of the Committee shall be to assist in bringing to the attention of the people of the United States the great services rendered by Jefferson to agriculture and to encourage and promote appropriate and timely activities in connection with the agricultural aspects of the United States Commission for the Celebration of the Two Hundredth Anniversary of the Birth of Thomas Jefferson, in the various agricultural meetings to be held during the current year, to encourage appropriate programs dealing with Jefferson and agriculture in the United States Department of Agriculture and the land-grant colleges, to encourage widespread dissemination through the press, the radio, farmers' meetings, the rural schools and agricultural high schools, and so forth, information about Jefferson and to otherwise cooperate with the United States Commission for the Celebration of the Two Hundredth Anniversary of the Birth of Thomas Jefferson.

On April 22, 1943, Senator Byrd asked unanimous consent for the consideration of Senate Joint Resolution 47, and it was passed by the Senate

after a brief explanation of its objectives.⁴ On reaching the House of Representatives on May 3, the resolution was referred to the Committee on the Library.⁵

On July 7, Representative Donald L. O'Toole submitted Report 676 to the House stating that the Committee on the Library favored the resolution with amendment.⁶ The amendment consisted of the addition of a section 2 at the end which read: "The provisions of this joint resolution shall not be construed to authorize the making of any appropriation to carry out its purpose."

The resolution was debated in the House on October 4, on October 18, and on November 15.⁷ On the latter day, amendments eliminating the whereases and revising the title were offered on behalf of Representative Schuyler O. Bland of Virginia who had been handling the resolution. These amendments and also the committee amendment of Report 676 were adopted.

The Senate concurred in the amendments to the resolution adopted in the House.⁸ Having been signed by the Speaker of the House and the President of the Senate, the resolution was presented to the President of the United States and approved and signed by him on December 3.⁹ The resolution thus became Public Law 196 of the 78th Congress, 1st Session.

Public Law 196 differed from the resolution as introduced in two main respects. The provision that the National Agricultural Jefferson Bicentenary Committee was to function under the general direction of the United States Commission for the Celebration of the Two Hundredth Anniversary of the Birth of Thomas Jefferson had been omitted, and the provision that the resolution "shall not be construed to authorize the making of any appropriation to carry out its purpose" had been added. The text of Public Law 196 is as follows:

To provide for the appointment of a National Agricultural Jefferson Bicentenary Committee to carry out appropriate exercises and activities in recognition of the services and contributions of Thomas Jefferson to the farmers and the agriculture of the Nation.

Resolved by the Senate and House of Representatives

⁴ *Ibid.*, 3700-3701.

⁵ *Ibid.*, 3874.

⁶ *Ibid.*, 7418.

⁷ *Ibid.*, 8039, 8435-8436, 9529-9531.

⁸ *Ibid.*, 9670.

⁹ *Ibid.*, 9902, 9978, 10053, 10674.

of the United States of America in Congress assembled,
That the purpose of this resolution is to authorize, during the year beginning April 13, 1943, which marks the two hundredth anniversary of the birth of Thomas Jefferson, the creation of the National Agricultural Jefferson Bicentenary Committee which, together with public and private institutions in the service of agriculture, the United States Department of Agriculture and the State colleges of agriculture and organizations composed of farmers and their families, is hereby authorized to hold, conduct, and participate in ceremonies and activities throughout the Nation not only to revere Thomas Jefferson as a patriotic statesman and philosopher, as author of the Declaration of Independence, as a private citizen and President of the United States but also in recognition of our great debt to him as a farmer, agricultural philosopher, inventive genius, educator, and leader in scientific agriculture.

Sec. 2. That there be created the National Agricultural Jefferson Bicentenary Committee. The Secretary of Agriculture is hereby appointed Chairman of and is hereby authorized to organize such Committee. The President pro tempore of the Senate shall appoint as members of the Committee five Members of the Senate. The Speaker of the House of Representatives shall appoint as members of the Committee five Members of the House of Representatives. The Secretary of Agriculture is hereby authorized to appoint in his discretion an appropriate number of members of the Committee representing the following agricultural organizations:

United States Department of Agriculture.

The land-grant colleges (including the colleges of agriculture, the agricultural experiment stations, and the agricultural extension services).

National farm organizations.

The agricultural press.

Scientific and learned societies dealing with agriculture.

The Office of Education.

The Secretary of Agriculture is empowered to appoint a secretary for the Committee. All members of the Committee are to serve without compensation. The duties of the Committee shall be to assist in bringing to the attention of the people of the United States the great services rendered by Jefferson to agriculture and to encourage and promote appropriate and timely activities in connection with the various agricultural organizations mentioned above and of the States of the United States, in the various agricultural meetings to be held during the current year, to encourage appropriate programs dealing with Jefferson and agriculture in the United States Department of Agriculture and the land-grant colleges, to encourage widespread dissemination through the press, the radio, farmers' meetings, the rural schools and agricultural high schools, and so forth, information about Jefferson.

Sec. 3. The provisions of this joint resolution shall

not be construed to authorize the making of any appropriation to carry out its purpose.

Approved December 3, 1943.

MEMBERSHIP OF THE COMMITTEE

Pursuant to the provisions of Public Law 196, the President pro tempore of the Senate appointed Senators Alben W. Barkley of Kentucky, Harry Flood Byrd of Virginia, Charles L. McNary of Oregon (deceased February 25, 1944), Elbert D. Thomas of Utah, and Wallace H. White, Jr., of Maine, and the Speaker of the House of Representatives appointed Representatives John M. Coffee of Washington, John W. Flannagan, Jr., of Virginia, Fred C. Gilchrist of Iowa, Clifford R. Hope of Kansas, and Richard M. Kleberg of Texas as members of the National Agricultural Jefferson Bicentenary Committee.¹⁰

The law designated the Secretary of Agriculture to serve as Chairman of the Committee and authorized him to appoint an appropriate number of members to represent six designated groups. In accordance with this provision, the Chairman named the persons here listed in connection with the organizations they represented.

United States Department of Agriculture: E. C. Auchter, Hugh H. Bennett, C. A. Browne, Everett E. Edwards, James T. Jardine, M. L. Wilson, and DeWitt C. Wing.

The land-grant colleges (including the colleges of agriculture, the agricultural experiment stations, and the agricultural extension services): R. E. Buchanan, J. R. Hutcheson, William A. Lloyd, T. O. Walton, and Carl R. Woodward. M. L. Wilson represented the United States Department of Agriculture.

National farm organizations: Edward A. O'Neal represented the American Farm Bureau Federation; James G. Patton, the National Farmers' Union; Albert S. Goss, the National Grange; Homer L. Brinkley, the National Council of Farmer Cooperatives; and T. O. Scott, the National Association of County Agricultural Agents. The last member as county agricultural agent of Albemarle County, Virginia, assisted greatly in effecting the local arrangements for the pilgrimage to Monticello.

The agricultural press: E. R. Eastman, Raymond H. Gilkeson, Tom Leadley, Paul D. Sanders, and Dave Thompson. Clarence Poe represented

the American Agricultural Editors' Association and DeWitt C. Wing the Department of Agriculture.

Scientific and learned societies dealing with agriculture: Agricultural History Society, represented by Theodore R. Schellenberg; Agricultural Society of South Carolina, W. McLeod Frampton; American Agricultural Editors' Association, Clarence Poe (see also representatives of the agricultural press listed above); American Association of Economic Entomologists, P. N. Annand; American Dairy Science Association, O. E. Reed; American Farm Economic Association, Eric Englund; American Genetic Association, Robert C. Cook; American Home Economics Association, Jessie W. Harris; American Horticultural Society, Mrs. Robert Woods Bliss; American Meteorological Society, William J. Humphreys; American Philosophical Society, Alexander Wetmore; American Pomological Society, Paul Stark; American Society of Agricultural Engineers, F. A. Wirt; American Society of Agronomy, C. E. Kellogg; Association of American Geographers, Lawrence Martin; Association of Southern Agricultural Workers, Thomas P. Cooper; Botanical Society of America and the National Research Council, Robert F. Griggs; National Association of Commissioners, Secretaries and Directors of Agriculture, H. K. Thatcher; Philadelphia Society for Promoting Agriculture, L. Wayne Army; Princeton University—New York Times Edition of Jefferson's Writings, Julian P. Boyd; Rural Sociological Society, Carl C. Taylor; Society of American Foresters, Henry E. Clepper; Thomas Jefferson Memorial Foundation, Stuart G. Gibboney (deceased April 24, 1944); and USDA Clubs, T. Roy Reid.

Office of Education: J. W. Studebaker and Dabney S. Lancaster.

In the case of the scientific and learned societies, the Chairman asked the presidents of the organizations to make nominations. The law also empowered the Chairman to appoint a secretary for the Committee, and Everett E. Edwards of the Bureau of Agricultural Economics served in this capacity.

ORGANIZATIONAL MEETING ON FEBRUARY 2, 1944

The National Agricultural Jefferson Bicentenary Committee held its organizational meeting in Secretary Wickard's office on February 2, 1944. The following members attended: Congressmen John W. Flannagan, Jr., Fred C. Gilchrist, Clifford R.

¹⁰ *Ibid.*, 78 Congress, 2 Session, 90:644, 863.

Hope, and Richard N. Kleberg; and P. N. Annand, E. C. Auchter, Hugh H. Bennett, Homer L. Brinkley, Henry E. Clepper, D. H. Daubert (representing F. A. Wirt), Everett E. Edwards, Eric Englund, Robert F. Griggs, James T. Jardine, C. E. Kellogg, William A. Lloyd, Lawrence Martin, W. R. Ogg (representing Edward A. O'Neal), O. E. Reed, T. Roy Reid, Paul D. Sanders, Theodore R. Schellenberg, Carl C. Taylor, A. Webster Tenney (representing J. W. Studebaker), Dave Thompson, H. K. Thatcher, M. L. Wilson, and DeWitt C. Wing.

In opening the meeting, Mr. Wickard referred to the versatility of the services of Jefferson as a national and world leader and emphasized that far too little cognizance had been given to his many contributions in the field of agriculture. In the discussion that followed, many worth-while ways and means of commemorating Jefferson's agricultural contributions were suggested. These suggestions are summarized below in connection with the consideration of the organization primarily concerned. All suggestions were made on the basis of voluntary cooperation and the use of current facilities of participating organizations. To implement the suggestions, various subcommittees were designated.

PILGRIMAGE TO MONTICELLO ON APRIL 13, 1944

The National Agricultural Jefferson Bicentenary Committee sponsored a pilgrimage of agricultural people to the home of Jefferson on the 201st anniversary of his birth.¹¹ Most of the people who participated traveled as a group on the Southern Railway from Washington, D. C., but others joined them at Charlottesville. All groups of organizations with members on the Committee were represented, but the largest delegation consisted of agricultural editors who attended as members of the American Agricultural Editors' Association. At the suggestion of DeWitt C. Wing, James G. Watson, the association's president, had arranged to include the pilgrimage as part of the association's annual meeting.

On arriving at Charlottesville, the participants in the pilgrimage proceeded to the campus of the

University of Virginia where guides pointed out the buildings designed by Jefferson and constructed under his supervision. At noon the group assembled in the Rotunda for part of the day's program of speeches.¹² J. S. Wilson, dean of the Graduate School of the University, welcomed the guests and introduced Herbert A. Kellar of the McCormick Historical Association, Chicago, who spoke on "Living Agricultural Museums." Following a brief recess, Wallace L. Kadderly of the United States Department of Agriculture introduced J. R. Hutcheson of Virginia Polytechnic Institute who paid a brief tribute to Jefferson on behalf of the land-grant colleges, the agricultural experiment stations, and the extension services. Dean Wilson then introduced Secretary Claude R. Wickard who spoke on "Thomas Jefferson, the Founder of Modern Agriculture." The addresses by Dr. Hutcheson and Secretary Wickard were broadcast over the Blue Network as part of the National Farm and Home Hour program.

Following the radio broadcast, the participants in the pilgrimage were taken by automobile to Monticello where they were served a picnic luncheon by the Charlottesville and Albemarle County Chamber of Commerce. The unusual clearness of the atmosphere during the day afforded rare views of the Rivanna Valley, the Piedmont, the city of Charlottesville, and the Blue Ridge; and Extension Service photographers were enabled to make a valuable series of photographs of the events and settings of the pilgrimage.

After the luncheon, Wilson Gee of the University of Virginia introduced Edwin M. Betts of the University of Virginia who spoke on the gardens of Monticello and James E. Ward of Clemson College who outlined the farming activities at Monticello in Jefferson's time and answered questions from the audience.

The group then adjourned to Jefferson's grave for the memorial exercises and wreath-laying ceremonies held annually on April 13 by the Thomas Jefferson Memorial Foundation. One of the members of the National Agricultural Jefferson Bicentenary Committee, President Carl R. Woodward of Rhode Island State College presented the main address, the theme being "Thomas Jefferson Survives."

Late in the afternoon, most of the group visited the farms of Jefferson, including the Shadwell farm

¹¹ For other printed accounts of the pilgrimage, see Charlottesville, Virginia, *Daily Progress*, Apr. 13, 1944; Berry H. Akers, "An Editor's Observations," *Farmer*, 69(9):8 (May 6, 1944); and F. A. Wirt, "Thomas Jefferson Celebration," *Agricultural Engineering*, 25:192, 196 (May 1944).

¹² For the addresses at the Rotunda and Monticello, see pages 178-190 of this report.

where he was born. Hugh H. Bennett of the United States Soil Conservation Service pointed out past and present erosion control practices and thus provided one of the most distinctly educational features of the day's program.

Throughout the day the surroundings and the addresses emphasized the vast contributions of Jefferson as a farmer, gardener, agricultural engineer, and soil conservationist, as well as his eminent services in public office, and the participants in the pilgrimage left Charlottesville knowing that in honoring one of the greatest Americans of all time they had greatly enlarged their own understanding of the meaning of the principles that he consciously wove into the warp and woof of the Nation he helped to create.

U. S. DEPARTMENT OF AGRICULTURE

Activities: The Department of Agriculture published the sourcebook compiled and edited by Everett E. Edwards under the title, *Jefferson and Agriculture* (Washington, 1943), and the bulletin by Hugh H. Bennett, "Thomas Jefferson, Soil Conservationist," *Miscellaneous Publication 548* (Washington, 1944) as aids in the study of Jefferson's agricultural contributions. Incident to Dr. Bennett's bulletin, photographers of the Soil Conservation Service made a series of photographs of objects and settings on Jefferson's farms.

Members of the Department addressed three meetings devoted to Jefferson at the Cosmos Club, Washington, D. C. On April 19, 1943, M. L. Wilson discussed Jefferson's moldboard plow. On November 22, 1943, C. A. Browne read a paper on "Elder John Leland and the Mammoth Cheshire Cheese." On April 10, 1944, Everett E. Edwards, C. A. Browne, and Hugh H. Bennett presented a symposium on "Jefferson's Fourth Freedom, Freedom from Hunger." The talk by Dr. Bennett on Jefferson and soil conservation was illustrated with lantern slides.

Everett E. Edwards assembled a collection of pertinent excerpts from Jefferson's writings and other sources on the agricultural contributions of Jefferson and a file of bibliographical notes for use in supplying informational data needed for articles and programs on Jefferson.

Helen L. Eddy assembled and integrated a series of sixty photographs depicting Jefferson's life and contributions as an agriculturist and prepared an accompanying lecture text for a slidefilm issued by the Extension Service. It is designed especially

for boys' and girls' clubs, local farm organizations, and rural schools.

Members of the staff of the Department participated in the pilgrimage to Monticello.

Members of the Department prepared the following articles: C. A. Browne, "Elder John Leland and the Mammoth Cheshire Cheese," *Agricultural History*, 18:145-153 (October 1944); "Thomas Jefferson and Agricultural Chemistry," *Scientific Monthly*, 60:55-62 (January 1945); "Thomas Jefferson and the Scientific Trends of His Time," *Chronica Botanica*, 8(3):361-424 (Summer 1944); and "Thomas Jefferson's Relation to Chemistry," *Journal of Chemical Education*, 20:574-576 (December 1943). Helen L. Eddy, "Thomas Jefferson's Land Practices," *Land Policy Review*, 7(3):22-25 (Fall 1944). Everett E. Edwards, "Thomas Jefferson and the Public Domain," *Land Policy Review*, 7(2):25-28 (Summer 1944). Charles E. Kellogg, "Appreciation of Thomas Jefferson on the Occasion of the Two Hundredth Anniversary of His Birth," *American Society of Agronomy, Journal*, 36:371-372 (April 1944). O. E. Reed, "Thomas Jefferson in Agriculture," *Journal of Dairy Science*, 27:613-616 (August 1944). C. B. Sherman, "Thomas Jefferson, Far-Sighted Farmer," *Better Crops with Plant Food*, 28(9):18-21, 44-45 (November 1944). M. L. Wilson, "Agricultural Jefferson Recognized," *Extension Service Review*, 15:55 (April 1944); "Jefferson and His Moldboard Plow," *The Land*, 3:59-64 (1943); "Jefferson, Father of Agricultural Science," *Extension Service Review*, 14:74 (May 1943); "Jefferson's Interest in Farming and Scientific Agriculture," *Virginia Polytechnic Institute, Extension Division News*, 25(9):1-2 (July 1943); "Survey of Scientific Agriculture," *American Philosophical Society, Proceedings*, 86:52-62 (1942); "Thomas Jefferson and Agricultural Engineering," *Agricultural Engineering*, 24:299-303 (September 1943); "Thomas Jefferson—Farmer," *American Philosophical Society, Proceedings*, 87(3):216-222 (1943); and "Why Agriculture Honors Jefferson," *Congressional Record*, 78 Congress, 1 Session, 89 (Appendix): 4544-4546 (1943). DeWitt C. Wing, "Thomas Jefferson: Pioneer in Genetic Science," *Journal of Heredity*, 35:173-174 (June 1944).

Exhibit: The Office of Exhibits of the Department of Agriculture arranged an extensive, attractive, and informative exhibit commemorating the bicentenary of the birth of Jefferson in the patio of the Administration Building of the Department.

The exhibit was open to the public during April 9-23, 1944, and over two thousand persons visited it. Invitations to visit the exhibit were extended to the faculty and students of the universities, colleges, academies, and schools in or near Washington, the officers and members of the Parent Teacher Association of Washington, the newspapers, hotels, and public libraries of Washington, the national associations with headquarters in Washington, and the personnel directors of governmental agencies. It was suggested that the exhibit be kept intact and made available on loan to the land-grant colleges and similar institutions.

The central feature of the exhibit was a general tribute to Jefferson, the farmer, philosopher, and statesman. It consisted of a copy of the Brown portrait of Jefferson, a photograph of Monticello, maps showing the United States as Jefferson knew it and the Louisiana Purchase, a facsimile of the Declaration of Independence, and a set of the first work published from the writings of Jefferson, together with suitable legends for each item.

Arranged in a circle around the central unit was a series of panels, dioramas, and cases that were primarily concerned with Jefferson as an agriculturist. His love of farming, soil conservation practices, labor-saving inventions, crop-rotation systems, plant and animal introductions, and views on agricultural education were emphasized. A special feature was a model of Jefferson's moldboard, prepared from the specifications drafted in 1798. This model, together with the Lamprey plow of 1732, a modern steel plow, and a series of miniature plows loaned by the Smithsonian Institution, supplied a visual history of plows in the United States. Another noteworthy feature was an aerial mosaic of the area of the five farms owned by Jefferson near Charlottesville.

Copies of "Selected References on Thomas Jefferson and His Contributions to Agriculture," prepared by Everett E. Edwards and issued as United States Department of Agriculture *Library List 8*, were available for distribution at the exhibit. Department photographers made a series⁶ of photographs of the exhibit as a whole and of the individual displays.

The Thomas Jefferson Memorial Auditorium: In accordance with the recommendation of the National Agricultural Jefferson Committee, the auditorium in the South Building of the Department of Agriculture was dedicated in honor of Jefferson on May 29, 1945. The Under Secretary

of Agriculture, Grover B. Hill, presided. Two members of the Committee, namely, Representative John W. Flannagan, Jr., and Mr. W. A. Lloyd of the Association of Land-Grant Colleges and Universities, spoke concerning Jefferson's varied contributions and delineated the appropriateness of honoring Jefferson by naming the auditorium of the Department for him. A large photographic reproduction of the Mather Brown portrait (1786) of Jefferson has been placed on the rear wall of the auditorium. In the foyer of the auditorium is the dedication plaque which bears the name, Thomas Jefferson Memorial Auditorium, a medalion of Jefferson, and the following inscription: "Dedicated to Thomas Jefferson, Virginia farmer and farm leader who found 'no occupation . . . so delightful . . . as the culture of the earth' and who held agriculture to be 'a science of the very first order.'"

Lectures: Plans have been made for a series of lectures by distinguished scientists commemorating Jefferson in the auditorium of the Department of Agriculture. The central theme deals with the scientific trends as related to agriculture in the period of Jefferson. The lectures are planned to include the histories of sciences in Jefferson's time and their significance as a foundation for later developments, the significance of the books on the subjects to be covered that were in Jefferson's library, and Jefferson's contributions to the sciences included in the series. It is hoped that these lectures can be edited and published as a volume with the return of peace and that they will constitute a substantial contribution to the history of the modern agricultural sciences in their formative period.

THE LAND-GRANT COLLEGES, THE EXPERIMENT STATIONS, AND THE EXTENSION SERVICES

At the organizational meeting of the Committee, it was suggested that the Association of Land-Grant Colleges and Universities sponsor a liberty-tree-planting ceremony, including appropriate addresses, participation by boys' and girls' clubs, and use of samples of soil from every State, as part of the pilgrimage to Monticello. It was also suggested that a similar tree-planting ceremony might be held on the campus or experimental farm of each State college. On investigation, however, it was found that a ceremony of this sort at Monticello was counter to the regulations of the Thomas Jefferson Memorial Foundation, and the

plan was abandoned. As indicated above in the statement on the pilgrimage, representatives of the land-grant colleges attended; J. R. Hutcheson of Virginia Polytechnic Institute paid tribute to Jefferson on behalf of the agricultural colleges, experiment stations, and extension services, and Carl R. Woodward of Rhode Island State College was the main speaker of the memorial service at the grave.

It was suggested that the land-grant colleges might emphasize Jefferson's agricultural contributions and philosophical principles in special convocations or in commencement exercises. It was further suggested that the presidents of the colleges might appoint Jefferson agricultural committees to correlate and sponsor the activities undertaken on the respective campuses.

The Extension Service issued a fact sheet providing a brief background and summary of the reasons for the creation of the National Agricultural Jefferson Bicentenary Committee, a summary of the outstanding contributions by Jefferson in the establishment of scientific agriculture and rural democracy, and a digest of the activities recommended by the committee for use in furthering the commemoration of the Jefferson agricultural bicentenary. The Extension Service also distributed copies of the sourcebook, *Jefferson and Agriculture*, to the county agricultural agents.

A subcommittee on activities for this group of organizations met on February 10, 1944, and recommended various activities for the State and county extension services with reference to the rural groups with which they work.

The activities at the land-grant colleges are summarized in the following paragraphs.

Colorado State College: Henry Schmitz, dean of the College of Agriculture of the University of Minnesota and president of the Society of American Foresters gave an address on "Thomas Jefferson's Contributions to Agriculture" at the commencement exercises on April 21, 1944.

Purdue University: President E. C. Elliott referred to Jefferson's contributions to agriculture at the closing exercises for the Eight Weeks Winter Course students on February 25, 1944, and copies of the sourcebook, *Jefferson and Agriculture*, were sent to this group at their farm homes in Indiana. The sourcebook was also distributed to the staff of the School of Agriculture, together with a letter from Dean V. C. Freeman asking that the subject be considered in the agricultural classes on Jefferson's birthday.

Kansas State College: Frequent reference was made to the life of Jefferson in class work and at public gatherings during the bicentenary year, but no special ceremony was held.

University of Kentucky: Dean Thomas Cooper of the College of Agriculture participated in the pilgrimage to Monticello as the representative of the University.

Massachusetts State College: A committee with Director Fred J. Sievers of the Graduate School and Experiment Station arranged a convocation of the student body on April 13, 1944 at which Harlan P. Kelsey, president of the Massachusetts Horticultural Club, spoke on "The Jefferson Bicentenary and Agricultural Development." Following the convocation, a Jefferson bicentenary luncheon was held.

Michigan State College: In commemoration of Jefferson's contributions to agriculture a tree-planting ceremony was held on the campus on April 13, 1944.

Mississippi State College: A statement on the life work of Jefferson with particular attention to his interest in agriculture was sent to all county agents and agricultural workers of the State and also to all county papers. Several talks were made by agricultural workers regarding Jefferson.

University of Missouri: The State of Missouri has a special tie with Jefferson because it was the second State to be carved from the Louisiana Purchase and its capital is named for him. Jefferson's birthday has been a State holiday since April 13, 1931. The University was the first State university in the territory of the Louisiana Purchase, and it has held an annual ceremony at the Jefferson Monument on the campus since 1932.¹³ On April 13, 1943, a special commemoration of the bicentenary was held for the University students and air corps cadets with Irving Dilliard as the main speaker.¹⁴ On April 13, 1944, Dean M. F. Miller of the College of Agriculture delivered an address on Jefferson's interest in agriculture.¹⁵

University of Nebraska: Data on Jefferson's contributions were included in public addresses delivered during the bicentenary year.

University of Nevada: United States Senator James G. Scrugham and Miss Eva Adams were designated to represent the University of Nevada on the pilgrimage to Monticello. A tree-planting

¹³ University of Missouri, *Bulletin*, 33(13): May 1, 1932.

¹⁴ *Columbia Missourian*, Apr. 13, 1943.

¹⁵ *Ibid.*, Apr. 13, 1944.

ceremony was held in connection with the annual Mackay Day celebration. The contributions of Jefferson were featured at commencement exercises on May 22, 1944.

New Jersey State College of Agriculture, Rutgers University: Material on Jefferson was sent by 4-H club agents to approximately 900 leaders. A special letter from the State Office to all club agents urged that each club hold a special program or devote part of a regular program to Jefferson during April 1944. The State Office issued one publicity article as a State-wide news release.

North Dakota Agricultural College: At the request of Ernest L. DeAlton, State supervisor of agricultural education, copies of the sourcebook, *Jefferson and Agriculture*, were sent to the 25 vocational instructors who serve as advisors for the local chapters of the Future Farmers of America in the State.

Oklahoma Agricultural and Mechanical College: The Jefferson bicentenary was called to the attention of the field workers and programs were held by various county organizations, 4-H clubs, etc.

Pennsylvania State College: William F. Hall of the department of rural education distributed copies of the sourcebook, *Jefferson and Agriculture*, to the 350 chapters of Future Farmers of America in Pennsylvania.

Rhode Island State College: A special student assembly commemorating Jefferson was held on April 5, 1944, with the following speakers and topics: Helen M. Carpenter, "Thomas Jefferson, a Portrait"; Carl R. Woodward, "Jefferson, the Agricultural Leader"; and William A. Itter, "Jefferson, the Exponent of Agrarian Democracy." During the spring there was considerable emphasis on Jefferson's contributions in the 4-H Club programs, and the school officials of the State endorsed the plan for tree plantings on school grounds in memory of Jefferson. On July 7, President Woodward addressed a 4-H Club camp and used the slidefilm, "Thomas Jefferson, the Farmer," issued by the Extension Service. He also spoke at the memorial service at Monticello on April 13.

Clemson Agricultural College: James E. Ward of the division of social sciences addressed the pilgrimage at Monticello on April 13. His article on "Thomas Jefferson's Contributions to Agriculture" appeared in the *University of Virginia News Letter*, Apr. 15, 1943, and the *Congressional Record*, 78 Congress, 1 Session, 89 (Appendix): 1769-1770 (1943).

University of Tennessee: The personnel was in-

formed of the plans of the Committee and was supplied with a statement on Jefferson's contributions to agriculture and his influence on agricultural education.

Virginia Agricultural and Mechanical College and Polytechnic Institute: J. R. Hutcheson spoke on behalf of the land-grant colleges, the agricultural experiment stations, and the extension services at the Rotunda session of the pilgrimage on April 13.

State College of Washington: Members of the staff referred to Jefferson's contributions in addresses, but no special program of observance was held.

NATIONAL FARM ORGANIZATIONS

Although it was recognized that the times were unfavorable, the suggestion was made at the organizational meeting of the Committee that the farm organizations might be able to include short articles on Jefferson in their official publications and references to his agricultural contributions in speeches by their officials, to assist in distributing informational data such as the pamphlet, *Jefferson and Agriculture*, made available by the Department of Agriculture and other agencies, and to encourage the holding of special programs on Jefferson by their local units. It was suggested that the social and economic as well as the scientific contributions of Jefferson to agriculture should be emphasized.

AGRICULTURAL PRESS

As indicated in the statement concerning the pilgrimage, the American Agricultural Editors' Association included the pilgrimage as part of its annual meeting, and in consequence the agricultural editors as a group constituted the largest representation in attendance. A number of the farm periodicals included reports on the pilgrimage by editors who attended.

At the organizational meeting of the Committee, the agricultural editors stated that they could use short articles on specific phases of Jefferson's agricultural activities in their publications and that similar materials might be used by the daily press. Incident to this suggestion, the agricultural editors were supplied with copies of the sourcebook, *Jefferson and Agriculture*, and copies of the addresses presented at the pilgrimage.

SCIENTIFIC AND LEARNED SOCIETIES

Insofar as practicable, it was suggested that the societies have a paper or session devoted to Jeff-

son at their regular meetings, that they publish one or more articles on Jefferson in their respective official organs, that they supply lists of their members who could be called on to prepare popular articles for widespread use, and that they, individually and collectively, promote and sponsor long-time projects that memorialize Jefferson. In any participations by the societies, it was urged that emphasis be placed on presenting a world view of Jefferson, on interpreting as well as presenting facts about him, on pointing out that, to Jefferson, there was no dividing line between the abstract and the practical, and on delineating Jefferson's social and economic contributions.

These recommendations were reviewed by a subcommittee consisting of Charles E. Kellogg (chairman), Charles A. Browne, Henry E. Clepper, and Theodore R. Schellenberg and recapitulated in a letter addressed by the chairman to the members representing the scientific and learned societies on the Committee. The letter urged that the membership of the societies be apprised of the general program being sponsored by the Committee and that the membership of the societies be encouraged to suggest further activities concerning Jefferson.

The following statements relate to the societies represented on the Committee and their activities.

Agricultural History Society: The Society published the article by August C. Miller, Jr., on "Jefferson as an Agriculturist" in *Agricultural History*, 16:65-78 (April 1942). At its annual meeting on April 27, 1943, the Society directed its president to take appropriate steps to ensure cooperation with the National Agricultural Jefferson Bicentenary Committee in its work, and at the annual meeting on February 14, 1944, the Society authorized its executive committee to take whatever action it deemed desirable with reference to the Society's assisting the Committee.

American Agricultural Editors' Association: See the statements above under the headings, Pilgrimage at Monticello, and Agricultural Press.

American Association of Economic Entomologists: Harry B. Weiss, "Thomas Jefferson and Economic Entomology," *Journal of Economic Entomology*, 37:836-841 (December 1944).

American Dairy Science Association: O. E. Reed's address on "Thomas Jefferson in Agriculture" before the Association at Columbus, Ohio, on June 20, 1944, was published in the *Journal of Dairy Science*, 27:613-616 (August 1944).

American Farm Economic Association: Arrange-

ments were undertaken to secure an article on Jefferson for the *Journal of Farm Economics*.

American Genetic Association: DeWitt C. Wing, "Thomas Jefferson: Pioneer in Genetic Science," *Journal of Heredity*, 35:173-174 (June 1944).

American Home Economics Association: The Association called the attention of the State associations to the activities of the Jefferson Committee and suggested that the study of the home life at Monticello and other homes of Jefferson's day would be an appropriate topic for State meetings.

American Horticultural Society: Powell Glass, "Jefferson and Plant Introduction," *National Horticultural Magazine*, 23:127-131 (July 1944).

American Philosophical Society: The Society celebrated the bicentennial of Jefferson's birth on April 22, 1943, with a symposium of addresses on Jefferson which were published in the Society's *Proceedings*, 87(3):199-289 (July 14, 1943). On this occasion, M. L. Wilson spoke on "Thomas Jefferson—Farmer." See *ibid.*, 216-222, and Everett E. Edwards, ed., *Jefferson and Agriculture*, 14-22. The Society published *Thomas Jefferson's Garden Book, 1766-1824, with Relevant Extracts from His Other Writings*, annotated by Edwin Morris Betts (Philadelphia, 1944).

American Society of Agricultural Engineers: The address by M. L. Wilson on "Thomas Jefferson and Agricultural Engineering" before the annual meeting in June 1943 was published in *Agricultural Engineering*, 24:299-303 (September 1943). A report by F. A. Wirt on the pilgrimage to Monticello appears under the title, "Thomas Jefferson Celebration," in *ibid.*, 25:192, 196 (May 1944).

American Society of Agronomy: Charles E. Kellogg, "Appreciation of Thomas Jefferson on the Occasion of the Two Hundredth Anniversary of His Birth," *American Society of Agronomy, Journal*, 36:371-372 (April 1944). T. B. Hutcheson and S. S. Obenshain were scheduled to present a paper on "The Contributions of Thomas Jefferson to Agronomy" at the Society's meeting in the fall of 1944.

Association of American Geographers: Lawrence Martin is preparing an article on geographical memorials relating to Jefferson for the *Annals* of the Association of American Geographers. It is to be illustrated with a series of hitherto unpublished maps showing the use and distribution of Jefferson as a place name throughout the United States.

Botanical Society of America: Edmund H.

Fulling, "Thomas Jefferson—His Interest in Plant Life as Revealed in His Writings," *Torrey Botanical Club, Bulletin*, 71:563-598 (November 1944), and two other parts to be published. Robert F. Griggs suggested the appropriateness of using the twinleaf, *Jeffersonia diphylla*, as a decorative motif on materials sponsored by the Committee.

National Association of Commissioners, Secretaries, and Directors of Agriculture: Individually, many of the commissioners included recognition of Jefferson as an agriculturist in their programs. A number of the commissioners, including Tom Linder of Georgia, R. A. Trovatten of Minnesota, W. Kerr Scott of North Carolina, Math Dahl of North Dakota, Joe C. Scott of Oklahoma, E. H. Everson of South Dakota, and L. M. Walker, Jr., of Virginia, prepared special articles for the press, *Society of American Foresters:* J. D. Guthrie, "The Many-Sided Jefferson," *Journal of Forestry*, 42:237-242 (April 1944).

USDA Clubs: Copies of the sourcebook, *Jefferson and Agriculture*, were distributed to the USDA clubs, and they were encouraged to hold meetings on Jefferson.

U. S. OFFICE OF EDUCATION AND RELATED AGENCIES

Members attending the organizational meeting of the Committee suggested participation of the various levels of educational institutions in the commemoration, including programs on Jefferson in the rural and vocational schools and at meetings of boys' and girls' farm clubs. It was also suggested that prints of a portrait of Jefferson be distributed to the schools for ceremonial hanging in connection with special programs, but the times made it impracticable to carry out this suggestion. John W. Studebaker was designated chairman of a subcommittee to implement the recommendations, and he was empowered to call on William T. Spanton, A. Webster Tenney, and others to assist.

An article on "Programs Portraying Jefferson Contributions: Opportunity for School Activity" and a statement by John W. Studebaker recommending "to all teachers and administrators that they encourage and sponsor programs, classroom activities, discussions, and other educational activities to fulfill the objectives toward which the National Agricultural Jefferson Bicentenary Committee is working" were published in the United States Office of Education's official biweekly, *Education for Victory*, 2(17):20 (Mar. 3, 1944). A

"Thomas Jefferson Bibliography" was printed in *Education for Victory*, 2(18):6 (Mar. 20, 1944). Similar articles were published in educational magazines, such as the National Education Association's *Journal* and the State journals. As a result, assembly programs on Jefferson were held, classes studied the life and contributions of Jefferson, and libraries prepared special exhibits that were interesting and instructive.

The Agricultural Education Service of the Office of Education sent an announcement about the observance of the bicentenary to the State advisers of the Future Farmers of America and the New Farmers of America. As a result, most of the State publications of these groups carried stories and announcements about the observance. Many special programs, such as programs for chapter meetings, service club programs, and assembly programs, were held in honor of Jefferson. The materials prepared for these observances will be used for many years by teachers and pupils in the public schools.

THE COMMITTEE'S FINAL MEETING AND RECOMMENDATIONS

The National Agricultural Jefferson Bicentenary Committee held its final meeting in Secretary Wickard's office on June 26, 1944. The following members attended: Hugh H. Bennett, C. A. Browne, Henry E. Clepper, Robert C. Cook, Everett E. Edwards, Robert F. Griggs, Carl Hamilton (representing Secretary Wickard), Avery S. Hoyt (representing P. N. Annand), James T. Jardine, C. E. Kellogg, William A. Lloyd, O. E. Reed, T. Roy Reid, Paul D. Sanders, Theodore R. Schellenberg, T. O. Scott, Carl C. Taylor, A. Webster Tenney (representing J. W. Studebaker), H. K. Thatcher, Alexander Wetmore, M. L. Wilson, DeWitt C. Wing, F. A. Wirt, and Carl R. Woodward.

In the absence of Secretary Wickard, M. L. Wilson presided. Everett E. Edwards presented a preliminary draft of the statement entitled "The National Agricultural Jefferson Bicentenary Committee: Its Activities and Recommendations" and requested the membership to suggest additions and corrections.

The Committee considered and enthusiastically approved the following recommendations:

1. The naming of the auditorium of the United States Department of Agriculture the Jefferson Auditorium. See page 173.

2. The establishment of a Jefferson Birthplace Memorial Park with appropriate attention to Jefferson's agricultural interests and contributions as projected by the Charlottesville and Albemarle County Chamber of Commerce. In the course of the discussion of this recommendation, Raymond Hunt and L. H. Peterson, president and executive secretary respectively of the Charlottesville and Albemarle County Chamber of Commerce, and Robert F. Nelson of the Virginia State Chamber of Commerce outlined the suggestions made to date concerning this proposal.

3. The creation of a national agricultural museum that will adequately depict the historical development and importance of the country's agriculture and that will serve as a living institution in delineating the nature and significance of American agriculture and its problems.

4. The encouragement and promotion of due emphasis on agriculture in history courses and of

adequate attention to the history of science in science courses.

5. The commendation of the comprehensive edition of Jefferson's writings in preparation at Princeton University under the direction of Julian P. Boyd and the tender of the cooperation of the groups represented on the Committee in the execution of this undertaking.

6. The acquisition by the Department of Agriculture of oil portraits of Washington, Jefferson, and Lincoln, the three great Americans whom it has honored for their contributions to American agriculture.

7. The preparation of the Department of Agriculture's Jefferson exhibit in permanent form so that it is available on loan to interested institutions throughout the country.

8. The appointment of a small committee to foster and carry out the preceding recommendations.

ADDRESSES PRESENTED AT THE PILGRIMAGE

A TRIBUTE FROM THE LAND-GRANT COLLEGE ASSOCIATION

JOHN R. HUTCHESON

Virginia Polytechnic Institute

As spokesman for the land-grant colleges and their representatives on this pilgrimage, I want to express our debt of gratitude to Jefferson for pioneering in so many phases of the agricultural work that we are striving to carry on today. We take pride in the fact that the roots of the land-grant college system are anchored in this great patriot's agricultural philosophy. The three fields in which his farming interests centered were: Education, agricultural research, and the dissemination of information on farming and farm life to rural people. These are the foundation stones of the land-grant college system.

Through the modern colleges of agriculture, Jefferson's idea of providing specific instruction on agricultural subjects is being put into practice. The opportunity for better rural living, through agricultural education, is provided in each of the Forty-eight States as well as in Alaska, Hawaii, and Puerto Rico.

The agricultural research and experimental work, that Jefferson contributed so much to, are going forward locally today under the programs of the State agricultural experiment stations.

The State extension services—through the dissemination of farm and home information to rural America—are fulfilling the idea back of Jefferson's agricultural societies. He saw the need for making available to farm people the information on farming and farm living that was—and still is—so essential to progress in agriculture.

In this time of war, the land-grant college system is better able to contribute to the cause of our country, as a result of the agricultural pioneering that Jefferson did.

In paying tribute to this great early American and farmer, I am sure I express the sentiments of the millions of rural school children and 4-H club boys and girls, who are holding special exercises today in honor of the agricultural Jefferson.

THOMAS JEFFERSON—FOUNDER OF MODERN AMERICAN AGRICULTURE

CLAUDE R. WICKARD

It has been only in recent years that we recognized that Thomas Jefferson was the founder of modern American agriculture. It was his influence, more than that of any other man in our history, which has made our agriculture efficient and progressive. It is proper that we not only pause on this anniversary to pay him tribute, but that we also review his accomplishments and study his philosophy as they relate to agriculture. Such knowledge will not only furnish us wisdom for solving the problems of war and the peace to follow; it will give us inspiration and courage to meet these problems.

Jefferson enjoyed farming. His happiest days were spent at Monticello, his farm home here in Albemarle County, Virginia. His love of farming was only exceeded by his love of freedom. Early in life he dedicated himself to the preservation of the inalienable rights of man. He believed that only under a true democratic form of government could there be an opportunity to enjoy those rights. But he knew that a democracy could not survive unless its citizens were intelligent, industrious, efficient, and morally courageous. In other words, in a democracy people had to be able to govern themselves.

Jefferson had a deep and abiding faith in farm people. While in Paris, he wrote John Adams saying: "Cultivators of the earth are the most valuable citizens. They are the most vigorous, the most independent, the most virtuous, and they are tied to their country and wedded to its liberty and interest, by the most lasting bonds."

When we consider Jefferson's love for farming, his devotion to democracy, and his dependence upon farm people to make democracy strong, we can readily see why he was constantly endeavoring to expand American agriculture and to make farmers efficient, happy, and prosperous. A review of what Jefferson advocated and accomplished in agriculture reveals how far he was ahead of his time, and that much still remains to be done to accomplish his objectives.

Jefferson foresaw the desirability of having the ownership and management of the land vested in those who tilled the soil, instead of in the hands of a few wealthy landowners. Shortly after finishing the drafting of the Declaration of Independence he was successful, in the Virginia legislature, in

repealing the laws of inheritance which provided that the large estates be kept intact from one generation to the other.

This action, along with the democratic principles which he advocated for disposition of the public domain, establishes Jefferson as the father of the idea of the family-sized farm. Few today voice objection to this principle, but there are some difficult problems still to be solved in achieving this objective which Jefferson believed meant so much to the safety of the Republic.

In making the Louisiana Purchase, Jefferson was motivated by the knowledge that the acquisition would make it possible to develop the agriculture of the fertile Mississippi Valley. He also took part in setting up the procedure for admission of the vast territories beyond the Alleghenies into the Union as States on an equal basis with the Thirteen Original States. Jefferson well realized that there was in these territories a vast amount of undeveloped and fertile land. This fact, however, did not blind him to the necessity of conserving the soil.

One of Jefferson's chief concerns at Monticello was the matter of soil erosion and the preservation of soil fertility. He observed the damage of the heavy rains to the cultivated slopes and was one of the first to see the advantage of contour plowing. He also established at Monticello definite rotations, including the use of legumes. He was one of the first to realize that impoverishment of the soil leads to the impoverishment of the people who live on the soil and the weakening of the entire Nation. Thus, Jefferson can truly be called the founder of our modern programs for soil conservation.

Jefferson attained international fame as an agricultural scientist. To Jefferson, the science of agriculture was not only a matter of never-ending interest, but it was a means of making farm people more efficient and more independent. When he found a valuable new crop or species, he wanted to have his neighbors and friends try it. He never sought to patent any of his inventions or developments. Instead, he freely made available detailed descriptions to all who were interested. He was most happy when visitors came to Monticello for agricultural information and demonstrations. He actively promoted the Agricultural Society of Albe-

marle County because he wanted to bring about an exchange of ideas among the farmers of the county. Because of his accomplishments in scientific agriculture and his development of procedures for exchanging scientific information, we may properly regard him as the founder of agricultural research and our modern agricultural extension service.

Jefferson was a firm believer in the establishment of higher educational institutions for the application of the sciences to agriculture. In speaking of agriculture, he said: "It is a science of the very first order. It counts among its handmaids the most respectable sciences, such as chemistry, natural philosophy, mechanics, mathematics generally, natural history, botany. In every college and university, the professor of agriculture, and the class of its students might be honored as the first." Thus, it can well be said that he was the founder of the land-grant college idea.

If Jefferson were alive today he very probably would be in the vanguard of our most progressive agricultural scientists and leaders. On one occasion he said: "The earth *belongs* to the living, *not* to the dead." On another, he wrote: "I know also that laws and institutions must go hand in hand with the progress of the human mind. As that becomes more developed, more enlightened, as new discoveries are made, new truths disclosed, and manners and opinions change with the change of circumstances, institutions must advance also and keep pace with the times."

Are we—as educators, as publicists, as scientists, as leaders in the field of agriculture—keeping pace with and holding to the standards set by the founder of modern American agriculture? Or, are we too often inclined to follow in the grooves of habit and to avoid conflict with the entrenched?

Let no one gain the idea that Jefferson believed in education of a few privileged people. He saw very clearly that education must be universal if the citizens of a democracy are to retain the advantages of democracy. He said, "Influence over government must be shared by *all* the people.... I have indeed two great measures at heart, without which no republic can maintain itself in strength. 1. That of general education, to enable every man to judge for himself what will secure or endanger his freedom. 2. To divide every county into hundreds, of such size that all the children of each will be within reach of a central school in it."

Today our freedom, our democracy, our way of life have been challenged by the military strength of dictators who have no regard for the rights of men. We shall successfully meet this challenge on the field of battle. When victory is won, we shall again take up the task of making democracy strong through making the individual intelligent and strong, and through enabling him to judge for himself what will secure or endanger his freedom. That will involve furthering the principles and ideals of Thomas Jefferson in agriculture and in government.

JEFFERSON'S GARDENS AT MONTICELLO

EDWIN M. BETTS

Miller School of Biology, University of Virginia

On July 4, 1805, Jefferson's granddaughter, Ellen Randolph, who was then a young girl, wrote to her grandfather for a definition of the fine arts. Jefferson, in replying to her inquiry on July 10, wrote:

To answer the question in your letter of the 4th. I must observe that neither the *number* of the fine arts nor the particular arts entitled to that appellation have been fixed by general consent. many reckon but five Painting, sculpture, architecture, music & poetry. to these some have added Oratory, including within that Rhetoric which is the art of style & composition. others again, add Gardening as a 7th. fine art. not horticulture, but the art of embellishing grounds by fancy. I think L'. Kaims [Lord Kames]

has justly proved this to be entitled to the appellation of a fine art. it is nearly allied to landscape painting, & accordingly we generally find the landscape painter the best designer of a garden. no perfect *definition* of what is a fine art has ever been given. some say that as those are *mechanical* arts, which consist in manual operation unconnected with the understanding, those are *fine* arts which to manual operation join the exercise of the imagination or genius. this would comprehend sculpture, painting, architecture & gardening, but neither music, poetry, nor oratory. others say that the sciences are objects of the understanding, the *fine* arts of the senses. this would add gardening, but neither poetry nor oratory. a definition which should include Poetry & Oratory & no more would be very difficult to form....

It is of special interest to note the importance placed on gardening by Jefferson in this illuminating analysis of the fine arts, an analysis which shows his keen insight into eighteenth-century writings on the subject.

Just as Jefferson's house at Monticello was not to be in the conventional manner of the Virginia houses of his day, so neither was the landscaping of his grounds. And too, Jefferson had a different problem to solve in landscaping his grounds—his house was built upon a mountaintop, a condition entirely new in America and even in England. That Jefferson understood this problem to be unique is shown in his letter to William Hamilton, of the Woodlands, Philadelphia, dated July 1806. He wrote:

The grounds which I destine to improve in the style of the English gardens are in a form very difficult to be managed. They compose the northern quadrant of a mountain for about $\frac{3}{4}$ of its height & then spread for the upper third over its whole crown. They contain about three hundred acres, washed at the foot for about a mile by a river of the size of the Schuylkill. The hill is generally too steep for direct ascent, but we make level walks successively along it's side, which in it's upper part encircle the hill & intersect these again by others of easy ascent in various parts. They are chiefly still in their native woods, which are majestic, and very generally a close undergrowth, which I have not suffered to be touched, knowing how much easier it is to cut away than to fill up. The upper third is chiefly open, but to the south is covered with a dense thicket of Scotch broom (*Spartium scoparium* Lin.) which being favorably spread before the sun will admit of advantageous arrangement for winter enjoyment. You are sensible that this disposition of the ground takes from me the first beauty in gardening, the variety of hill & dale, & leaves me as an awkward substitute a few hanging hollows & ridges, this subject is so unique and at the same time refractory, that to make a disposition analagous to its character would require much more of the genius of the landscape painter & gardener than I pretend to.

The formal gardens of the Virginia estates of his time seem not to have appealed to Jefferson. His taste, as noted in the letter to Hamilton, was for the newer style of naturalistic landscape gardening which had originated in England and which was sweeping into France and other parts of the Continent at the time that Jefferson was making plans for developing Monticello. He was the first American to propose the adoption of this landscape style to his country.

Before Jefferson left for France in 1784, he had read among other books on gardening, Thomas Whately's *Observations on Modern Gardening*, Lord Kames' *Elements of Criticism*, and several books by William Shenstone. He was fully aware of the revolutionary changes that were taking place in gardening in England and felt that the naturalistic garden was the type best suited for the United States.

When Jefferson reached France, naturalistic gardening was at its height. Horace Walpole had written *The History of Modern Gardening*, which Jefferson no doubt read while serving in France. He later owned a copy of it in the collected works of Walpole. Whately's *Observations on Modern Gardening*, however, seems to have had the greatest influence on his own conception of gardening, and it was his constant companion on a tour of English gardens which he made in the spring of 1786. The effect of this tour was to be seen in Jefferson's final plans for landscaping Monticello.

Jefferson's earliest plans for landscaping Monticello are found on the last four pages of his Account Book, 1771. These romantic plans are written in the style of the English gardenist, with grottoes, cascades, temples, parks, groves, and inscriptions. The plans are a landmark in American gardening, for they embody the first attempt to introduce the eighteenth-century idea of English gardens to the United States. Although many of these early plans for landscaping Monticello were never carried to completion, some of them were, as, for example, the deer park on the north side of the mountain where deer and other animals were confined.

Although Jefferson began planting on Monticello Mountain as early as 1767, and although the four roundabouts which encircled the upper part of the mountain had been almost completed, little appears to have been done in developing a garden before his departure for France. He did, however, have a flower bed near the house and a vegetable garden and a large orchard on the southeastern slope of the mountain. His garden, like his house, was continually being changed. These alterations were caused by the long absences from his mountaintop and by new conditions which were always presenting problems there.

It was not until after Jefferson had become President that the gardens at Monticello were laid out in their final form. The vegetable garden which had been laid out and planted with vege-

tables in 1774 was, in 1808 and 1809, regraded, divided into 3 platforms or terraces, and separated into 24 squares. This garden was completed soon after he had retired from the Presidency and was then planted with an amazing number and variety of vegetables.

The flower garden, as recently restored by the Garden Club of Virginia, was begun in 1807. It was in this year that the round and oval flower beds on the west and east lawns near the house were laid out and planted. It is interesting to observe that these beds were laid out by Jefferson during the trial of Aaron Burr, which was being held at Richmond, Virginia. This incident shows how Jefferson could detach himself from troubling events and return to gardening, his most absorbing interest.

Although planned in 1807, neither the flower borders on the western lawn were planted nor the gravel walk laid out until the following year. On June 7, 1807, Jefferson wrote to his granddaughter, Anne Randolph, telling her of his plans and drawing a sketch of the flower borders and walk on the back of the letter. In 1812 the borders were divided into compartments of 10 feet each, thus separating groups of similar flowers from each other. Jefferson made only a few references to the flower garden after 1812.

The grove or pleasure grounds at Monticello was located just below the western lawn. Jefferson formulated plans for it in 1804. Here are some of the details of his plans.

GARDEN OR PLEASURE GROUNDS

The canvas at large must be Grove, of the largest trees, (poplar, oak, elm, maple, ash, hickory, chestnut, Linden, Weymouth pine, sycamore) trimmed very high, so as to give it the appearance of open ground, yet not so far apart but that they may cover the ground with close shade.

This must be broken by clumps of thicket, as the open grounds of the English are broken by clumps of trees, plants for thickets are broom, calycanthus, althaea, gelder rose, magnolia glauca, azalea, fringe trees, dogwood, redbud, wild crab, kalmia, mezereon, euonymus, halesia, quamoclid, rhododendron, olean-der, service tree, lilac, honeysuckle, bramble. . .

Vistas to very interesting objects may be permitted,

but in general it is better so to arrange thickets as that they may have the effect of vista in various directions.

Dells or ravines should be close in trees & undergrowth.

Glens, or hollows should be opened downwards, being embraced by forest.

Glades opened on sloping hill sides, with clumps of trees within them.

Temples or seats at those spots on the walks most interesting either for prospect or the immediate scenery. . .

In this grove Jefferson planted his choice native and exotic trees and shrubs. They have all disappeared. Tradition says that many of them were cut down to make way for mulberries during the silkworm craze that reached Albemarle County in the 1830s.

Jefferson had other plans for beautifying his mountaintop which have not been mentioned, such as extensive thorn hedges, an avenue of Scotch broom terminating near an intricate pinwheel labyrinth of broom, and a *ferme ornée*, which combined the attributes of an experimental farm and garden.¹

In the early years of Monticello, Jefferson's long absences prevented him from carrying out his grandiose landscape plans, while in the years of his retirement financial burdens checked him.

Jefferson wrote to Benjamin H. Latrobe in the fall of 1809 that "my essay in Architecture [Monticello] has been so much subordinated to the law of convenience, & affected also by the circumstance of change in the original design, that it is liable to some unfavorable & just criticisms." He could have expressed the same criticism about his landscaping plans.

But Monticello today attests to Jefferson's love for beautiful creations, and enough of his dreams were consummated to give lasting joy to all who come to see it and the magnificent panorama spread out around it.

¹ For additional details see *Thomas Jefferson's Garden Book, 1766-1824, with Relevant Extracts from His Other Writings*, annotated by Edwin M. Betts (American Philosophical Society, *Memoirs*, v. 22, Philadelphia, 1944); and Edwin M. Betts and Mrs. Hazelhurst B. Perkins, *Thomas Jefferson's Flower Garden at Monticello* (Richmond, Va., Dietz Press, 1941).—Editor.

MONTICELLO: AN EXPERIMENTAL FARM

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To appreciate and understand thoroughly the farming activities at Monticello in Jefferson's time a bird's-eye view of the methods and modes of agricultural practice prevalent in Virginia during the eighteenth century is essential.

The civilization in Virginia was uniformly and universally rural. Agriculture was the one great industry and to this all others were tributary. This is to be expected since a love of the country and a passion for rural pursuits and pastimes had been socially inherited along with other traits of the English blood and the difficulties and climate of America had strengthened rather than weakened these. The farming was everywhere of the pioneering type and marked by crudeness and simplicity. The intelligent European settlers of the "Old Dominion" were quick to reduce the soil to cultivation, to determine which crops they could raise to best advantage, and to create farms out of the light virgin soil. Such soils required only the slightest stirring of the surface to produce a harvest. Rich harvests of tobacco, grain, and other products sent to Europe were sold at high prices. These, in turn, stimulated production, and the fertile soil was subjected to a scourging course of cultivation which soon exhausted it. By the middle of the century many thousands of acres had been laid waste and worn out by successive years of cultivation.

The conspicuous and basic feature of Virginia agriculture was the plantation system which rested upon large acreage, non-free labor, and staple export products. These three elements—large acreage, slavery, and crops produced for export—tended each to extend the other and to fix the plantation system with its extensive methods of cultivation as the dominant force in Virginia's agriculture, regardless of the greater number of small farms which existed in some regions of the colony. Hence, the typical picture of Virginia agriculture can be summed up in three phrases—overworked lands everywhere, diversified social life preeminent, and one-crop system predominant.

The agricultural practices of Jefferson at Monticello were a far cry from the established methods of his day. To discuss Monticello is to talk about Jefferson, for they are inseparately associated.

The mention of the one at once suggests the other. When it is realized that Monticello was not merely Jefferson's home, but his creation as well, it is readily understood why the history of such a house and of the life of the man who lived there are so inseparately bound. Someone has said that "Monticello is more peculiarly the achievement of the brain and hand of one man than any other home ever built." It was Jefferson who selected the wonderful site and who was the architect and practical builder. Since by instinct the architect is an artist who paints pictures, when the subject of the picture is completed, other features are then sketched in the background. Unless the environment is in harmony, the picture is daub.

Thus Jefferson impressed his thought and his preference upon everything about him. On his mountaintop, he built roundabout walks and terraced gardens, planted domestic and imported trees and seeds, and kept minute records to see whether foreign specimens could be adapted to the soil and climate of his country.

It was Jefferson who decided where to plant the orchard and how, what trees to set out and where, what spot to level for flowers and which for vegetables. No detail of his plantation seemed too trifling to escape his attention and his overseers repeatedly stated that he held them strictly accountable in following every detail of his instructions.

Soon after Monticello was built, it became a small principality of two hundred inhabitants almost independent of the world without. Here were manufactured and produced nearly all the food and other products for which there was need with the exception as Jefferson stated it "a little finery for the women."

Jefferson's ideas with reference to agriculture were far in advance of his day. He was among the first to practice crop rotation. He was a scientific farmer and in arranging for his system of rotation he divided his cultivated lands into four farms of 280 acres each, and each farm into seven fields of 40 acres. The boundaries were marked by rows of peach trees. The seven fields indicated that his system of rotation of crops embraced seven years. He reduced corn to one year in seven, and

tobacco seems to have been eliminated entirely. He always stressed the maxim that where the soil is left bare the sun "absorbs the nutritious juices of the earth." Consequently, in his rotation system, he did not designate any land to be fallow, but rather cultivated certain plants, especially legumes, because he accepted the idea that such plants would absorb fertility from the atmosphere and store it in the soil. Another observation can be verified by a study of this rotation system. The crops planted on the various fields provided a continuity of employment for both the labor force and the work stock and thereby avoided excessive peak demands.

Jefferson was not the type of farmer, of whom there were then and are today far too many, to content himself with the things as they were. He was one of the first American agricultural experimentalists, and he was ever alert for better methods, willing to take any amount of time and pains to remedy existing conditions and practices which had proven bad.

Jefferson was a pioneer in the use of competent farm machinery. At a time when his fellow countrymen were dropping corn by hand and planting seed whose fertility they did not question, he was testing the germination of what he planted and making some improvements in the moldboard of the plow and introduced the practice of having it cast entirely of iron. This all-metal plow was shaped according to mathematical computations and the moldboard had the least possible resistance. He also used a corncob crusher, a sheller, a drilling machine, and a threshing machine, the last of which he introduced into this country.

One sound agricultural principle that Jefferson advocated firmly was deep plowing. However, his records indicate that to the last of his life he was still trying to impress his laborers with the necessity for it. His perseverance went for naught since they continued merely to scratch the surface.

Jefferson observed that in the prevailing system of plowing on the hillsides in Albemarle the farmers' efforts were often wasted by the rainstorms which washed both the crops and the soil down the hillside. He and his son-in-law, Thomas Mann Randolph, attacked this problem and the result was the introduction of horizontal and terraced plowing brought about by the development of a hillside plow.

As a result of experimentation, Jefferson domesticated many trees and shrubs, native and

foreign, that were able to stand the Virginia winters. He collected these trees and shrubs from all parts of the world in order to plant them at Monticello. Among the trees were three very rare trees for this area—the silk tree, the paper mulberry tree, and the bread tree. He tried almost every species of valuable nut, vegetable, grain, bulb, shrub, tree, and grass the world knew at that time. In 1812 according to his Garden Book, 32 vegetables were cultivated at Monticello. In addition to these vegetables, 22 crops were raised, including turnips, vetch, buckwheat, potatoes, wheat, rye, oats, barley, Indian corn, peas, clover, fodder, cotton, artichokes, straw, lucerne, succory, pumpkins, hay, carrots, hemp, and flax.

Even back in that time the farmers' crops were often ruined or blighted by pests. Most of the agriculturalists, being deeply religious, accepted their fate as an act of God. Jefferson did not do so however. He immediately began to experiment both to produce a crop hardy enough to withstand the attack of the pests as well as to find a means of ridding the attacked crop of them. The Hessian fly was a particular menace to the growing of wheat. He tried many experiments and finally found that the burning of the stubble was an effective way of destroying this pest. This method is still in common practice. He also advocated the sowing of the wheat late enough to escape the fly.

In the raising of livestock as well as in crop production the Virginians were backward. They showed up to best advantage in the matter of horses. Horses, oxen, and mules were worked at Monticello as draft animals although the mule was much preferred. The oxen were used for the heavy burdens and were worked with a common yoke and bow.

The livestock in Virginia, and in all America as well, was more or less nondescript with the possible exception of the few fine specimens of horses found here and there. Jefferson turned his attention toward the improvement of the existing breeds of livestock after his retirement from the Secretaryship of State. Until the day of his death, he wrestled with this problem and his experiments and troubles brought superior results.

Of prime importance to him was the condition of the sheep on his estate and in Virginia generally. There were at least two quite distinct reasons for his interest in sheep. First of all, he used the sheep

Virginia to feed his slaves, and secondly, he realized the importance of wool as a textile material. Even before he became the Secretary of State in President Washington's cabinet, he had improved his flock by selection and care until he was getting 10 pounds as an average clip. That of the other farmers rarely averaged 2 pounds. While President, Jefferson imported Merino sheep. He also imported some "Calcutta" hogs to improve his own stock and that of his friends.

Is it any wonder that Jefferson and Monticello are bound together? If Jefferson loved his home more than most men, it must be admitted that few men are so much a part of their home. He was not

a theorist, but an experimenter, and all his experiments were conducted in a practical direction. In recent years the custom has been inaugurated of designating outstanding farmers as "Master Farmers." This award is not based alone on financial success, since true greatness in a man is gauged by what he accomplished in life and the impress he leaves upon his fellow man. Had that practice existed in Jefferson's day he would have been one of the few in all America entitled to that distinction. His greatness did not consist of one act alone or even of many, but rather in the effect of his experiments on the times in which he lived and their influence on posterity.

"THOMAS JEFFERSON SURVIVES"

CARL R. WOODWARD

Rhode Island State College

It is altogether fitting that on the two hundred and first anniversary of the birth of Thomas Jefferson, we should gather at his body's last resting place and again pay tribute to his memory.

When day dawned on July 4, 1826, the fiftieth anniversary of the signing of the Declaration of Independence, only three of the signers of that historic document survived. They were Charles Carroll, of Maryland, John Adams, and Thomas Jefferson. At the close of the day, only one remained—Mr. Carroll. On that day occurred one of the most extraordinary coincidences in our history. Earlier in the day, Mr. Jefferson's great heart ceased to beat, and before word could reach Massachusetts, in those days of slow communication, John Adams passed away.

We are told that Mr. Adams' last words were: "Thomas Jefferson survives." These words were as symbolic as they were prophetic. And they were true, though not in the sense that Mr. Adams meant. For though the physical Jefferson had ceased to be, his spirit was marching on. And the spirit of Thomas Jefferson lives today more richly, more fully, and greater in influence than ever before.

Thomas Jefferson lives in the spirit of these beautiful surroundings of his beloved Monticello.

He lives in the progressive rural life which he envisioned, and which we now enjoy.

He lives in the services of the great university which he founded.

He lives in the spirit of freedom which prevails in our land, and which we are now defending on the battlefields of the world.

He lives in the struggle of all mankind for the inalienable rights of life, liberty, and the pursuit of happiness.

The epitaph on his tomb, which he himself composed, provides us with an everlasting sermon in modesty and suggests a finely discriminating appraisal of his public services. Here was a man who preferred to be known as the author of our charter of liberty, the sponsor of a statute of religious freedom, and the founder of a university, rather than as President of the United States.

So it is with a deep sense of obligation and of reverence that we lay these wreaths at this cherished shrine of American ideals.

LIVING AGRICULTURAL MUSEUMS

HERBERT A. KELLAR

McCormick Historical Association, Chicago

The idea of the museum, a place where physical survivals or other forms of representation of the past can be preserved, goes back to an ancient time.¹ It is largely a cultural conception, manifesting itself whenever the individual, the family, the clan, the organization, or the inhabitants of a governmental or geographical unit, begin to take cognizance of the past. Presenting a visual record of the struggles and achievements of the passing years, a good museum possesses universal appeal for all classes and types of people. Rightly exploited, it recaptures the past in vivid graphic terms and in the process highlights man's slow progress towards a better life, suggesting the direction of things to come. To a marked degree, but only dimly appreciated up to the present time, the museum offers widespread opportunity for the future education of the people.

Coincident with our coming of age as a nation at the turn of the last century, and probably because of it, the museum idea began to make distinct progress in this country. Of particular interest is the advance achieved since 1920.

Among significant trends five may be noted. The first is the growing importance attached to accuracy as applied to museum exhibits. This has necessitated extensive historical research, revival of lost skills and mechanical techniques, and the continuation and the perpetuation of existing trades and handicrafts of ancient origin. It has meant a better authentication of apparent physical survivals, identification of original structure and former use, and meticulous care in repairs, restoration, and duplication.

The extensive research made in connection with Colonial Williamsburg and the activities of the Division of Historic Sites of the National Park Service at Morristown, Yorktown, Gettysburg, Fort Marion, and other places, offer outstanding and worthwhile examples of this attention to accuracy.

¹ This address was part of the program of the National Agricultural Jefferson Bicentenary Committee at the University of Virginia on Apr. 13, 1944.

A second trend is the introduction of motion into hitherto static exhibits. The extensive miniature railroad in the Museum of Science and Industry at Chicago, complete to the smallest detail, propelled by electricity, and simulating at command the action of the full-sized original, illustrates the point. In the same museum and equally pertinent are a series of models showing the evolution of reaping machines for a hundred years, which are made to move in all their parts by pressing a button. Different, yet in keeping with the principle, is the full-size reproduction of a coal mine, so realistic with its operating engines and moving shaft and galleries, that people have been known to ask in amazement how the museum happened to be so fortunate as to locate a coal deposit beneath the floor of the museum.

A third trend arises out of a growing realization among museum experts that displaying a number of separate articles as a unit without any particular order, rhyme, or reason for the assembly produces an exhibit which is not only lacking in historic or educational value but deadly dull to the spectator. Gradually it is being perceived that if related objects, either singly or in aggregate, are to be fully effective in display, they should be given a proper and authentic background. Thus we have the development of the period room, revealing furniture and costume, as shown at the Chicago Historical Society or the Metropolitan Museum of Art in New York City. It is equally evidenced in the interior furnishings at Kenmore, Arlington, and Mount Vernon, and in the equipment of the outer buildings and landscaping at these establishments. The marvelous sculptures and environment for the scenes of prehistoric man and also replicas of wild animals at the Field Museum of Natural History are likewise informing and intriguing to the public.

A further advancement of thought and practice in the matter of background is the perception that despite the reality of the setting for an exhibit, the psychological change necessitated in transporting the visitor from the modern world to say

colonial times and back again to the present is too abrupt and too fleeting in the average museum to permit full realization of the value of the exhibit. The transition is not made sufficiently deliberate; the isolation of the exhibit is not made sufficiently complete to create actual illusion. No matter how deep the immersion of the individual in the older setting, traces or discrepancies of the modern world persist in his sight and consciousness. Modern creating apparatus, electric lights, wiring, automobiles, modern costumes of attendants and other things of the present continually intrude upon his thought and tend to lessen the full effect and meaning of the former time. Much of this defect can be overcome, but some of it is unavoidable because of location of the exhibit and juxtaposition to surroundings.

A noteworthy instance of the application of the principle of isolation of exhibits from modern environment is the recreated village of New Salem, located near Springfield, Illinois. The town consists of two rows of log buildings, typical of slightly more than a hundred years ago, located on each side of a long dirt road which turns sharply to the left at the lower end so as to run parallel for a short distance to the Sangamon River. Situated on the top of a natural ridge with the forest encroaching on each side and the bluff above the river blocking easy approach at the curved end, the village is completely set apart, except for a natural entrance at the upper end. Here the Illinois State Park officials have erected an artificial barrier of earth which, covered with trees and other vegetation, seems a part of the general landscape. At the parking lot, located at the end of the road leading from the highway in the valley to the top of the ridge, the village is invisible. To discover it, it is necessary to walk past the end of the barrier. As one stands at this point and looks down the long street which is now revealed, the effect is surprising. You are suddenly in another world. This feeling grows as you explore in succession dwelling houses, a cooper's shop, a hattery, a country store, a doctor's office, an inn, a grog shop, and other edifices, and see each one fully equipped, and—if peopled—ready to take on accustomed activity at a moment's notice. The illusion is complete and you realize you have been transported back a hundred years, and that you are gazing in person at the outward appearances of life as it was carried on in another day and age. The complete absence of anything

within the village itself to remind one of the modern era is an additional aid in creating the illusion.

A fourth trend in museum expression is the endeavor to portray a comprehensive view of the past with either the aid of dioramas or the use of large-scale pictures and sculptures. The diorama, usually set in a box-like enclosure, open only on one side, which depicts scenes by means of groups of miniature models, is effective in covering much ground and in presenting an over-all view, such as the city of Chicago in the year 1850 as displayed at the Chicago Historical Society. A marked disadvantage of the diorama is the necessity of omitting detail. Another method is the large-scale mosaic or painting, usually arranged in series. Striking examples of such murals are the scenes showing the development of the city of Cincinnati displayed in mosaic on the walls of its union railroad station, the famous paintings of the events of the Civil War on the walls of Battle Abbey in Richmond, and the depiction of the Mexican Revolution in the rooms of the Dartmouth College Library at Hanover. Also impressive are the bas reliefs carved in pink marble on the outside of the Joslyn Memorial Art Museum in Omaha, which show the westward movement of pioneers. A disadvantage of the large-scale picture display is the extensive amount of wall space required.

A fifth trend is the emergence of the specialized museum devoted to a single phase of activity in the past. Here may be noted the museum of the Union Pacific Railroad at Omaha, the museum of the American Telephone and Telegraph Company in New York City, the Mariner's Museum at Newport News, and the Mercer Agricultural Museum of the Bucks County Historical Society at Doylestown, Pennsylvania. The number of such museums at the present time is surprisingly large and is increasing.

The extensive adoption by museums of one or more of the principles involved in the several trends which have been mentioned has resulted in a greatly improved and more interesting presentation of the physical aspects of former and even of current civilizations. Indeed, in art museums in particular there is a strong tendency to relate their activities more and more to the modern world. As a direct result less emphasis is now placed upon the past and considerable attention has been devoted to exhibits dealing with the current status of printing, sculpture, architecture, design, and other branches of the field.

It is clear, looking at the subject as a whole, that a new conception of the museum idea is gradually emerging from the changing activities of the last two decades. This new type of museum aims to portray vividly and realistically not only the past but, in many instances, the present. Purposely showing the relation of one to the other so as to give them meaning in terms of life, such an institution may well be called a *living* museum.

A potent factor in producing this amalgam of ideas, and adding to it qualities of spiritual and moral significance, is the present world war. Out of the turmoil and tragedy as well as the hopes and aspirations attendant upon that event has come the realization that, as citizens of the United States, too many of us are ignorant of much that we should know; and as a result, in time of crisis, we find ourselves confused in thought and unable to think clearly about either the present or the future.

Without elaborating the point, in the revamping of our educational system which is surely destined with the coming of peace, the living museum of the future offers real opportunity for service. Fully used by our schools, colleges and universities, and other educational agencies, it could become a powerful force not only in adding to our knowledge of the past and the present but also in developing an abiding faith in the democratic process.

A brief survey of the possible development of one type of *living* museum—the *living agricultural museum*—will suggest what might be accomplished by enlarging our view of the functions of the museum idea.

The concept of an agricultural museum is not new.² More than a hundred years ago Solon Robinson and contemporary colleagues advocated the creation of a national agricultural museum, and Henry L. Ellsworth, Commissioner of the United States Patent Office, began to assemble exhibits. Nothing permanent resulted from the proposal or the activity, and the conception yet remains to become a reality.³ In 1939 Russell H. Anderson, in his presidential address before the Agricultural History Society, suggested that the society sponsor the creation of a national agricultural museum to

be financed by Federal and private funds and to be located in Washington, D. C.⁴ A committee to canvass the possibilities was appointed and progress in planning has been made.⁵ The international situation and the entrance of the United States into the Second World War has delayed further action for the duration. It is planned to vigorously promote this project with the coming of peace.

Let us consider for a moment what should be the character of a national agricultural museum. It should probably be located in Washington, D. C. or some other appropriate place in the United States, housed in one or more large buildings, and surrounded with appropriate landscaping. Here, outdoors and under glass, should be shown in cultivation representative trees, shrubs, fruits, plants, flowers, and other vegetation of the United States. The outer walls of the buildings should present bas reliefs showing the evolution of agriculture in this country from the primitive Indian culture of the time of first settlement to the mechanized farming of the present day. On the inner walls should be placed large murals depicting famous agricultural events and scenes. Thus, might be found Eli Whitney experimenting with his cotton gin, Elkanah Watson holding the first agricultural fair, Cyrus Hall McCormick trying out his first reaper, or Lincoln signing the act creating the land-grant colleges. Of equal interest would be the portrayal of different types of agricultural operations, such as the production of wheat, corn, tobacco, cotton, sugarcane, rice, and other field crops, the cultivation of fruits and flowers, and the raising of cattle and livestock. In addition to murals there should be a gallery of paintings of agricultural leaders, representing all types of activity. A theater should likewise be provided where lectures, music, plays, ballets, and moving pictures of agricultural interest might be presented.

The evolution of agricultural machinery, rural architecture, electrification in farm regions, transportation, milling, tanning, meat packing, and other types of processing should receive separate

⁴ Russell H. Anderson, "A National Agricultural Center as a Focal Point," in *ibid.*, 129-136.

⁵ The committee's members are: Carleton R. Ball (chairman), Russell H. Anderson, C. A. Browne, Allen Eaton, Everett E. Edwards, Herbert A. Kellar, Frederick L. Lewton, Louis C. Nolan, Arthur G. Peterson, O. C. Stine, M. L. Wilson, and Carl R. Woodward.

² Everett E. Edwards, "References on Agricultural Museums," U. S. Dept. of Agriculture, Library, *Bibliographical Contributions* 29 (Washington, 1936).

³ C. A. Browne, "A National Museum of Agriculture: The Story of a Lost Endeavor," *Agricultural History*, 13:137-148 (July 1939).

and to be given attention in appropriate exhibits, including the use of dioramas, operating models, and full-sized originals.

The museum should develop a special library, include provision for publishing magazines, bulletins, and books, house and operate a radio station, maintain close relations with the agricultural press, cooperate with the land-grant colleges, and possess a microfilm and photostat laboratory for reproducing copies of literature about the museum, as well as pictures of its exhibits.

An important part of the museum should be the exhibits devoted to the social aspect of agricultural development. The life of the rural people should be fully portrayed for each era and for all classes and places. The relation of agriculture to geology, geography, climate and soils, entomology, biology, chemistry, and engineering also merit adequate attention.

The national agricultural museum should serve as the headquarters of important national farm organizations and provide appropriate quarters for this purpose. This would add prestige to the institution and increase the opportunity for service.

An essential feature of the museum would be to establish close relations with educational institutions and organizations. On its part the museum should offer general and special courses in the form of lectures, seminars, and laboratory research pertaining to various phases of the history of agriculture and of technology in this and other countries. These courses should be open to the public, and qualified students should be permitted to take them for educational credits. In addition, the museum should provide internships for individuals desiring to specialize in the history of agriculture and technology or to learn agricultural museum techniques. In reciprocity, educational agencies should invite members of the museum staff to lecture and to give courses to their students and to arrange for regular visits of students to the museum for the purpose of information and instruction. In all the activities of the museum its facilities should be developed to promote a better understanding of democracy, as illustrated in our agricultural development. These and like activities fully carried out would undoubtedly justify the designation of the national agricultural museum as a living agricultural museum.

In addition to a national agricultural museum located in Washington, D. C., there should be associated with it branch museums situated in dif-

ferent parts of the United States. These would be of such character as to merit the designation, living agricultural museums, to an even greater degree than the national institution.

These branch museums should take advantage of the existence in numerous places in this country of notable sites of representative agricultural activities which flourished in a former day and for a considerable period. Where possible such activities should be recreated at the original locations. Among those which come to mind are the production of wheat, corn, tobacco, cotton, rice, sugarcane, indigo, hemp, flax, vegetables, fruits, flowers, cattle and livestock, dairying, stock farming, maple sugar, turpentine, and lumbering. As far as practical in each instance operations should be shown for several periods such as the colonial, post-Revolutionary, ante-bellum, Civil War, Reconstruction, and early twentieth century. Likewise, whatever earlier periods are shown, some attention should be given to present-day operations to show contrast and evolution. Collections of physical objects, such as implements and machines, should also be assembled where pertinent to the particular activity.

The bonanza wheat farming of the Dakotas from the seventies to the nineties has long vanished—yet we know where the Dalrymples were located and have information about them. The lumber camps of the same period in Michigan and Wisconsin no longer exist, yet we have voluminous records of particular companies and a few tracts of virgin timber are still standing. It would still be possible to acquire wheat land and timber and to reestablish and operate a bonanza wheat farm or an old-time lumber camp.

There are a number of well-known tobacco, cotton, rice, and sugarcane plantations in the South, and cattle ranches, dairies, and stock farms in the Middle West and West where original ownership of land has passed and original agricultural activities are now changed. Some of these could be acquired and reestablished to operate as formerly.

In other instances the ownership has changed, but the original landholdings have been held together and still produce agricultural crops, though not always the same as before. Westover, Curles Neck, and Claremont on the lower James River are plantations of this type. Again, there are a surprising number of famous holdings which have been owned by the same families for a hundred

years or more. Shirley, the Carter estate on the James River, Folly, the Cochran plantation in Augusta County, Walnut Grove, the McCormick farm in Rockbridge County, and Berry Hill, the Bruce plantation near Halifax, all of which are located in Virginia, meet this pattern. The same is true of the Middleton estate on the Cooper River and Hampton Hall, the Rutledge plantation on the Santee River, both in South Carolina. In Louisiana, Rosedown, the Bowman family estate, and the Cottage, the long-time residence of the Butlers, should be added. The list could be considerably enlarged. In other cases such as Mount Vernon, Washington's estate, Stratford, the Lee plantation, Monticello, the residence of Jefferson, and the Hermitage, the home of Andrew Jackson, memorial associations operate these places as museums, with major attention given to the main dwellings. The National Park Service operates Wakefield, the Washington birthplace, and Arlington, the Lee residence, as well as other well-known places. Local and State historical societies and similar agencies have charge of still other houses and estates.

Whatever the agency concerned, in most cases little is being done with outlying land. In many instances present owners or trustees could probably be persuaded to do something in reproducing former agricultural conditions, on parts of land-holdings, particularly if skilled assistance were provided by a national agricultural museum or other authority. The National Park Service, of its own initiative, is already taking steps to produce former agricultural conditions at Wakefield and the Wick Farm at Morristown, and is also considering such a step at Homestead.

Aside from possible branch museums of the kind mentioned which might be set up in association with a national agricultural museum, attention should be called to the very interesting Farmers' Museum sponsored by the New York State Historical Association at Cooperstown.⁶ Aided by private endowment, the Association under the direction of Clifford Lord, has acquired an old house, barn, and other structures with a number of acres of land, and proposes to set up an operating agricultural museum, where both indoor and outdoor former agricultural operations in New York State of an early period will be shown in season. This certainly is a living agricultural museum.

⁶ Clifford Lord, "The Farmers' Museum," *Agricultural History*, 17:167-171 (July 1943).

In keeping with the establishment of branch agricultural museums in various parts of the United States it would be appropriate for a Jefferson agricultural memorial association to join with the Thomas Jefferson Memorial Foundation in operating Monticello, Shadwell, Poplar Forest, or other places directly associated with Jefferson. On one or more of these original Jefferson plantations two types of activities might be on display. One would be to carry out and reproduce the agricultural experiments recorded by Jefferson in his Garden Book and his Farm Book, including his development and trial of the moldboard plow. The second would be to relate these early enterprises to the latest and most advanced agricultural experiments of the present day. Set up side by side on the same plantation they would provide striking contrast between the early time and today and would indicate the evolution of agriculture in the United States.

Without attempting to suggest how such a plan could be carried out, it would seem clear that it should be a cooperative enterprise, possibly sponsored by such agencies as a national agricultural museum, the Extension Service of the United States Department of Agriculture, the National Park Service of the United States Department of the Interior, the Commonwealth of Virginia, the Virginia Polytechnic Institute, the University of Virginia, and the Charlottesville and Albemarle County Chamber of Commerce. Each of these would have contributions to make in case they were interested. For example, a national agricultural museum could aid in assembling a Jefferson agricultural museum which certainly should be included in any plan. In similar manner the Division of Historic Sites of the National Park Service could render assistance in connection with restoration work of buildings and grounds, of which undoubtedly there would be a considerable amount.

The necessary acreage for the plan could be purchased, if this were possible, or perhaps leased by arrangement with the present owners of Jefferson holdings so as to center the control of activities in a Jefferson agricultural memorial association. It is, of course, conjecture, but it might be surmised that Jefferson, if he could know about it, would be pleased to have his interest in agriculture commemorated in some such fashion.

NEWS NOTES AND COMMENTS

MISS MARJORIE F. WARNER'S COMMENTS ON THE "OBJECTIVES"

In a letter dated February 2, 1945, at Hendersonville, North Carolina, Miss Marjorie F. Warner, a charter and life member of the Agricultural History Society, makes the following comments with reference to "Objectives for the Agricultural History Society during Its Second Twenty-Five Years," *Agricultural History*, 18: 187-192 (October 1944).

"*Agricultural History* continues to be one of the most readable journals I see. There is no reason why it may not go on and on, always good and sometimes better. The objectives of the Society are many of them obvious, but they never look so impressive as in your concise and ordered summary. I wish to add a note to Carl R. Woodward's suggestion (*A. H.*, 18:190) about legal documents. A few years ago I sold a summer place I had owned about 40 years in the town of Groton, Grafton County, N. H. It had never been surveyed, and in drawing up a new conveyance it was necessary to use to some extent the old description of the boundaries, consisting of brooks, walls, &c. The house and tract on which it stood had probably changed little in over 100 years, but even during my own tenure there had been some changes in the natural boundaries, and a few corrections were needed.

"One point was a very old and magnificently tall elm tree that stood in a curve of a little brook, but rose to dominate the landscape in many directions until it was blown down in a storm possibly 25 years ago. It must have been a landmark from very early days, as it was noted not only in my warranty deed, but in much earlier titles. The brook was almost entirely on my property, and the stone wall running between me and my neighbor, whose ancestor had once owned my land, lay along the crest of its steep banks to within a few yards of the brook. Thence a makeshift of stakes, wires, poles, &c. crossed the stream to the big elm, afterwards to a post on its site; then recrossed to a substantial wall laid on high level ground to the country road.

"In bringing this to the notice of the lawyer who drew the deed, I asked whether the original owner might have left this break in the wall to make a watering place for his stock. He replied that this was almost certainly the case; that he owned a tract on which the boundary fence, otherwise following straight lines and angles, awkwardly detoured to give access to water; and there were many similar instances in our part of the country. In my case, it would have been much easier

to build a continuous wall on my neighbor's side of the brook. The water right had not been used in my time, and possibly not since it was set up. I had regarded the old elm from a sentimental and esthetic viewpoint, but until it became necessary to establish my ownership, it had not occurred to me that it had a legal status on my place. Thus walls, roads, dams, culverts, bridges, &c., originally built for farm convenience, leave traces on private and public property that may be puzzling without their agricultural interpretation."

DEAN H. L. WALSTER'S COMMENTS ON THE "OBJECTIVES"

In a letter dated December 19, 1944, Dean H. L. Walster of North Dakota Agricultural College made the following comments on "Objectives for the Agricultural History Society during Its Second Twenty-Five Years" (*Agricultural History*, 18:187-192, October 1944).

"It has seemed to me that our failure to enlist the enthusiastic support and cooperation of more of the staff members of our Land-Grant Colleges and Universities in historical studies earlier in their careers is preventing them from doing that which we most want them to do in their declining years, namely, some historical writing. Dr. C. B. Waldron, now 80, is retiring from this institution on January 1, 1945, after having served the institution since its establishment. We have made repeated efforts to get him to write the history of the institution, but there has been little forthcoming. He now leaves for the South; hence, we may expect little more from him.

"Our younger Ph.D.'s in the several sciences seem to have little interest in or even knowledge of the history of their own sciences, largely because they are too narrowly trained. The men in our social sciences are engulfed in a maelstrom of statistics if they are economists, and of sentimentality if they are sociologists. (There are, of course, some rare exceptions.) The teaching of agricultural history is being left to professional historians who all too frequently know too little agriculture.

"As far as I can learn, the Association of Land-Grant Colleges and Universities has not discovered 'The Agricultural History Society.' A cursory examination of the indexes of their annual reports for twenty years or more fails to reveal the word 'history.' The volumes themselves are, of course, good source material for much history.

"Since I do not believe in a lot of lamenting without suggesting a remedy, I suggest that an effort be made to have the theme of the strategic importance of research and teaching of agricultural history presented before some future meeting of the Association of Land-Grant Colleges and Universities. I shall have no hesitancy in approaching Dean Buchanan, the new president of the Association. I think that it is time that the agricultural historians began to talk and write for the entire Land-Grant College and University System and for the literate public at large rather than for themselves in their own little society. This is not intended to be critical of what has been done. It is, rather, the holding out of a No. 1 objective for the next twenty-five years, but since I may not live that long, I hope to see some of it realized before that amount of time passes."

THE 1945 ANNUAL MEETING

The Agricultural History Society held its 1945 annual meeting in the Conference Room of the National Archives in Washington, D. C., on June 18 at 8:00 p.m. Arthur G. Peterson, the Society's president, presided.

The minutes of the 1944 annual meeting were read and approved. President Peterson reported on the joint meeting with the American Historical Association in Chicago on December 28, 1944. The program for this session was arranged by Joseph C. Robert, assisted by Everett E. Edwards and Wendell H. Stephenson. Peterson also noted the meeting of the Economic History Association at Princeton on September 29-30, 1944.

The secretary-treasurer's report was read and approved. The Society's mailing list as of June 18 included 403 paying members, 13 life members, and 26 exchanges, or a total of 442, as compared with 438 on February 14, 1944. The report of the auditing committee, consisting of Robert E. Post (chairman), Walter T. Borg, and Helen L. Eddy was accepted. It was also voted that the Society thank S. Catherine Heberle for her invaluable assistance in keeping the financial accounts.

The editor of *Agricultural History* submitted a report to the members who were present, and copies of this report are available for distribution. He asked for and was voted authorization to print the report of the National Agricultural Jefferson Bicentenary Committee in the journal.

Following a report by Clarence H. Danhof and considerable discussion, the Society endorsed the movement for calendar reform sponsored by the World Calendar Association.

The results of the balloting for officers for 1945-46 were announced as follows: president, Charles J.

Brand; vice president, Richard O. Cummings; secretary-treasurer, Charles A. Burmeister; executive committee, Clarence H. Danhof and Warren C. Wainwright. This election was in accord with the recommendation of the nominating committee consisting of Charles J. Brand (chairman), Harold E. Briggs, James C. Mallory, T. R. Schellenberg, and E. E. Vial.

After a brief recess, President Arthur G. Peterson presented his presidential address, the subject being "The Agricultural History Society—The First Quarter Century." The incoming president, Charles J. Brand was introduced, and he spoke briefly concerning his interest in and hopes for the Society.

SECRETARY-TREASURER'S FINANCIAL STATEMENT

January 1-December 31, 1944

Balance on Jan. 1, 1944:

McLachlen Banking Corporation.....	\$837.11
Interstate Building Association.....	67.38

Receipts:

Membership dues

1943.....	\$15.00
1944.....	710.42
1945.....	421.57
1946.....	3.00
Contributing membership..	10.00
Life memberships.....	150.00
Gift.....	50.00
Interest.....	5.05
Back number sales.....	185.25
Reprints.....	119.58

Total receipts..... 1,669.88

Total receipts plus Jan. 1, 1944

balance..... \$2,574.46

Disbursements:

Printing and mailing 4 issues

of journal.....	\$1,140.64
Reprints.....	85.39
Postage.....	30.95
Stationery and supplies.....	8.05
Freight.....	3.45
Seal.....	3.75

Total disbursements..... \$1,272.23

Balance on Dec. 31, 1944:

McLachlen Banking Corporation.....	\$1,029.76
Interstate Building Association.....	272.41
	1,302.17

Total accounted for..... \$2,574.46